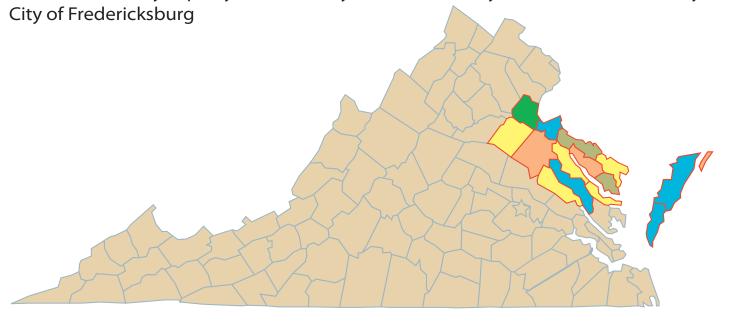
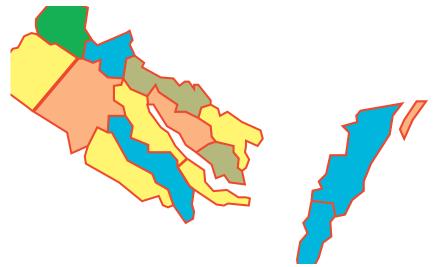
Community Profile of WIA XIII

Accomack County • Caroline County • Essex County • King & Queen County • King George County • King William County • Lancaster County • Mathews County • Middlesex County • Northampton County • Northumberland County • Richmond County • Spotsylvania County • Stafford County • Westmoreland County •







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Executive Summary

This report provides a demographic, economic, and educational profile of Workforce Investment Area XIII (WIA XIII), Bay Area. The purpose of these profiles is to assist on-going strategic planning efforts by providing a solid, data-driven, foundation for strategic decision-making. The primary findings from this report are:

- Between 2000 and 2010, WIA XIII will experience a major increase in its 55 and over population. The net result of this trend will be a significant "graying" of the overall population.
- · One implication of this trend is that younger entrylevel workers will be in short supply.
- WIA XIII is experiencing, and will likely continue to experience, increased employment in Services and Retail Trade.
- One implication of this is that the Service sector

 specifically, education is expected to account for much of the demand for trained workers between 1998 and 2008.

Executive Summary







I. Introduction

This report provides a community profile of Workforce Investment Area XIII (WIA XIII). It was produced by the Virginia Employment Commission, with assistance from the Virginia Community College System and the Virginia Economic Development Partnership, at the request of the Special Advisor to the Governor for Workforce Development. It is intended to assist on-going strategic planning efforts within the Workforce Investment Boards by providing a solid, data-driven, foundation for strategic decision-making.

The report is divided into four major sections. The first contains a profile of regional demographic characteristics and trends, the second supplies similar information for the regional economy, and the third provides a profile of regional education characteristics and projected demands for training and skills. These are followed by a summary and conclusion section.

Introduction







II. Demographic Profile

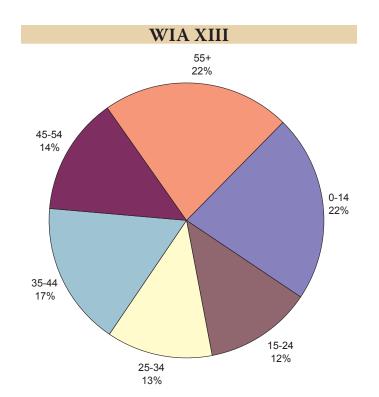
Population demographics are the single most important factor affecting WIA XIII's future labor force. Some key features of the area's population are as follows:

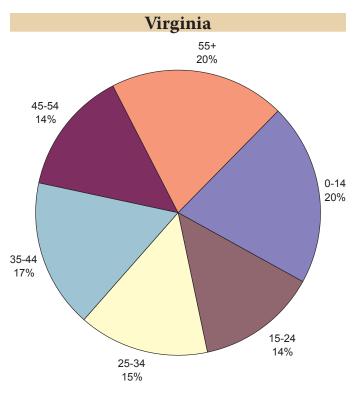
- · Projected to increase by 88,201 persons (or 22.6 percent) between 2000 and 2010. The largest increase is expected in Stafford County (35,454), followed by Spotsylvania County (34,605). In contrast, Northampton County is projected to loose population (-694).
- Smaller proportion of individuals who "speak English less than well". Where statewide the proportion of individuals five and older who speak English less than well is 2.2 percent, in WIA XIII it is 1.1 percent.
- The city of Fredericksburg draws the largest number of in-commuters (15,698) of any locality within WIA XIII, followed by Stafford County (12,976) and Spotsylvania County (10,076). On the whole, WIA XIII is a net exporter of workers with 16,934 individuals commuting into the area for work, while 63,456 of the area's residents commute to localities outside of WIA XIII for work.





Population by Age Cohort





WIA XIII	
0-14	85,734
15-24	48,758
25-34	49,162
35-44	65,911
45-54	54,589
55+	86,545
Total	390,699

United States

0-14

15-24

25-34

35-44

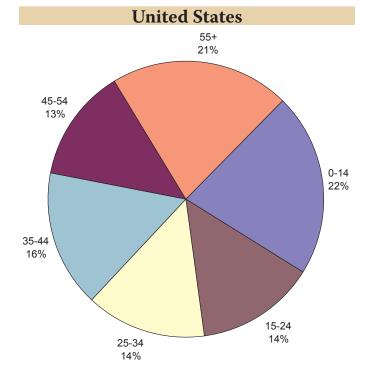
45-54

55+

Total

Source: 2000 Census.

Virginia	
0-14	1,453,452
15-24	963,469
25-34	1,036,911
35-44	1,200,950
45-54	999,548
55+	1,424,169
Total	7,078,494



281,421,906 Subparts may not add to total due to rounding.

60,253,375

39,183,890

39,891,724

45,148,527

37,677,952

59,266,437



Population by Race/Ethnicity

WIA XIII		
Total Population	390,699	100.0%
Race		
White	291,958	74.7%
Black or African American	81,860	21.0%
American Indian and Alaska Native	1,657	0.4%
Asian	3,734	1.0%
Native Hawaiian and Other Pacific Islander	212	0.1%
Other and Multi-Race	11,278	2.9%
Ethnicity		
Hispanic or Latino (of any race)	11,262	2.9%

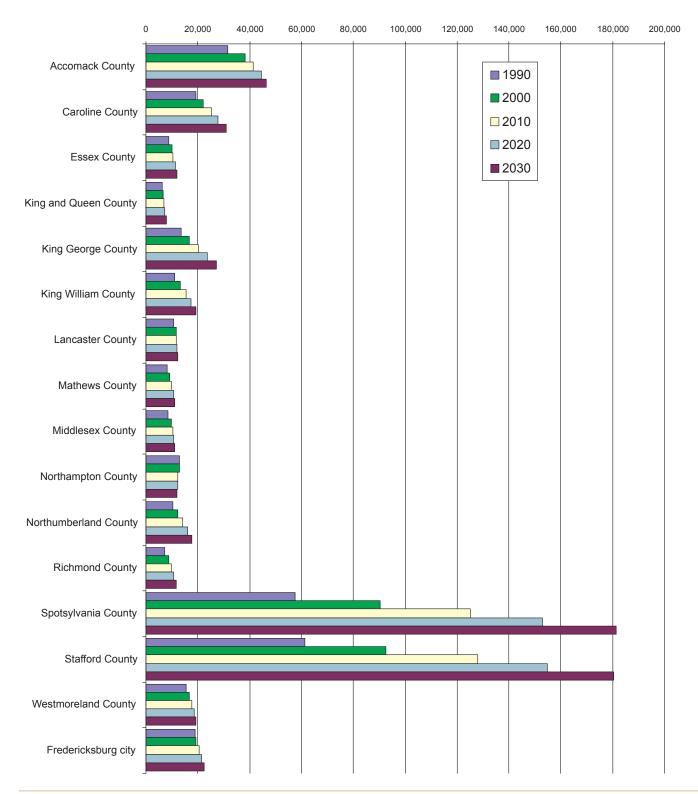
Virginia		
Total Population	7,078,515	100.0%
Race		
White	5,120,110	72.3%
Black or African American	1,390,293	19.6%
American Indian and Alaska Native	21,172	0.3%
Asian	261,025	3.7%
Native Hawaiian and Other Pacific Islander	3,946	0.1%
Other and Multi-Race	281,969	4.0%
Ethnicity		
Hispanic or Latino (of any race)	329,540	4.7%

United States		
Total population	281,421,906	100.0%
Race		
One race	274,595,678	97.6%
White	211,460,626	75.1%
Black or African American	34,658,190	12.3%
American Indian and Alaska Native	2,475,956	0.9%
Asian	10,242,998	3.6%
Native Hawaiian and Other Pacific Islander	398,835	0.1%
Other and Multi-Race	22,185,301	7.9%
Ethnicity		
Hispanic or Latino (of any race)	35,305,818	12.5%





Population Change



Data for 2010 - 2030 are projections. Subparts may not add to total due to rounding. Source: Virginia Employment Commission, 08/03, U.S. Census Bureau.





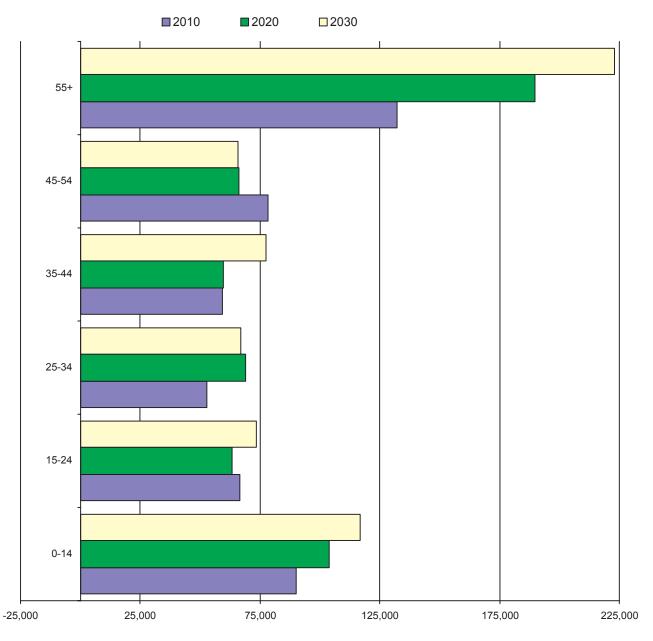
Population Change

	1990	2000	2010	2020	2030	
WIA XIII Total	302,239	390,699	478,900	552,000	623,200	
Accomack County	31,703	38,305	41,300	44,500	46,500	
Caroline County	19,217	22,121	25,200	27,900	31,000	
Essex County	8,689	9,989	10,400	11,300	11,900	
King and Queen County	6,289	6,630	7,000	7,400	7,800	
King George County	13,527	16,803	20,300	23,700	27,100	
King William County	10,913	13,146	15,400	17,400	19,400	
Lancaster County	10,896	11,567	11,800	12,000	12,200	
Mathews County	8,348	9,207	9,800	10,600	11,200	
Middlesex County	8,653	9,932	10,300	10,700	11,100	
Northampton County	13,061	13,093	12,400	12,200	12,000	
Northumberland County	10,524	12,259	14,300	16,000	17,700	
Richmond County	7,273	8,809	9,800	10,700	11,700	
Spotsylvania County	57,403	90,395	125,000	153,000	181,400	
Stafford County	61,236	92,446	127,900	154,700	180,400	
Westmoreland County	15,480	16,718	17,600	18,500	19,400	
Fredericksburg city	19,027	19,279	20,400	21,400	22,400	





Population Projections by Age Cohort



	2010	2020	2030
0-14	89,938	103,956	116,629
15-24	66,438	63,295	73,415
25-34	52,672	68,971	67,095
35-44	59,472	59,835	77,510
45-54	78,177	65,996	65,578
55+	132,203	189,947	222,973
Total	478,900	552,000	623,200

Subparts may not add to total due to rounding. Source: Virginia Employment Commission.





English Language Skills

(Age 5 and over)

	Total	Speaks English less than well
Accomack County	36,005	1,094
Caroline County	20,774	85
Essex County	9,519	20
King and Queen County	6,270	17
King George County	15,607	52
King William County	12,237	89
Lancaster County	11,134	45
Mathews County	8,766	65
Middlesex County	9,555	77
Northampton County	12,373	256
Northumberland County	11,740	49
Richmond County	8,436	100
Spotsylvania County	83,753	637
Stafford County	85,426	665
Westmoreland County	15,852	159
Fredericksburg city	18,186	469
WIA XIII	365,633	3,879
Percent of Individuals who speak	English less	than well
Virginia	2.17%	
WIA XIII	1.06%	





Commuting Patterns 1

		In-Comr	mute (To)														
		Accomack	Caroline	Essex	King and Queen	King George	King William	Lancaster	Mathews	Middlesex	Northampton	Northumberland	Richmond	Spotsylvania	Stafford	Westmoreland	Fredericksburg
	Accomack									5	1,369						
	Caroline			27		259	6	11					11	1,238	572	6	732
	Essex		66		124	117	94	19	3	71		30	311	109	47	102	21
	King and Queen		74	188		22	435	12	11	59		7	17	11		12	
	King George		68	7										568	576	110	726
٦	King William		102	122	154			16	5	31			8			11	
Fron	Lancaster			62		10	15		40	97		239	165				
Out-Commute (From)	Mathews			16	16		71	88		127	8	4					
mm	Middlesex			93	28		155	281	101			19	33	14		10	
it-C	Northampton	898															
Ō	Northumberland		13	231		25	29	897		57			508			170	8
	Richmond		12	563	6	51	9	95		10		241				337	7
	Spotsylvania		516	16	8	1,580	8						24		5,481	26	7,053
	Stafford		121			1,033								2,813		4	4,343
	Westmoreland		43	297	6	960	16	68	17			96	584	277	239		137
	Fredericksburg		83			346							7	1,938	1,263	26	
	Total To County/City From WIA XIII	898	1,098	1,622	342	4,403	838	1,487	177	457	1,377	636	1,668	6,968	8,178	814	13,027
	Other VA Localitites	287	631	256	152	531	992	268	313	556	147	123	320	2,864	4,161	97	2,352
	Maryland	800	32			528					24	9		174	557	25	291
	Washington D.C.					21								70	51		28
	Other Out of State	18	69	7		10	52	14		14	20	9	12		29	20	
	Total to County/ City:	2,003	1,830	1,885	494	5,493	1,882	1,769	490	1,027	1,568	777	2,000	10,076	12,976	956	15,698
	Total In State	1,185	1,729	1,878	494	4,934	1,830	1,755	490	1,013	1,524	759	1,988	9,832	12,339	911	15,379
	Total Out of State	818	101	7	0	559	52	14	0	14	44	18	12	244	637	45	319



Commuting Patterns¹

		Total From County/ City To WIA XIII	Other VA Localities	Maryland	Washington D.C.	Other Out of State	Total From County/ City:	Total In State	Total Out of State
	Accomack	1,374	316	1,666	19	62	3,437	1,690	1,747
	Caroline	2,862	3,866	58	215		7,001	6,728	273
	Essex	1,114	1,074	11	35	30	2,264	2,206	58
	King and Queen	848	1,343			10	2,201	2,191	10
	King George	2,055	786	682	242		3,765	2,841	924
	King William	449	4,173				4,622	4,622	0
From	Lancaster	628	397	30	23	40	1,118	1,025	93
Out-Commute (From)	Mathews	330	2,041	18		56	2,445	2,371	74
mmo	Middlesex	734	1,359			43	2,136	2,093	43
S F	Northampton	898	190	24	7	35	1,154	1,088	66
0	Northumberland	1,938	505	93	25		2,561	2,443	118
	Richmond	1,331	356	26	24		1,737	1,687	50
	Spotsylvania	14,712	11,515	611	2,122		28,960	26,227	2,733
	Stafford	8,314	21,897	772	3,310		34,293	30,211	4,082
	Westmoreland	2,740	873	288	202	55	4,158	3,613	545
	Fredericksburg	3,663	1,483	76	372		5,594	5,146	448

Total WIA Commuting ²	
Total Commuting To WIA:	16,934
Total Commuting From WIA:	63,456

Source: "In-Commuting Patterns" and "Out-Commuting Patterns," 2000 Census data, Virginia Employment Commission, http://www.vec.state.va.us/vecportal/lbrmkt/lmi_menu.cfm

Example of how to use the Commuting Patterns table:

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^{1.} Empty cells within the table indicate that the area's commuting represents less than .2% of total commuting or may be zero.

^{2.} Total Commuting to/from WIA= Other VA Localities + Out of State.

[&]quot;How many of Lancaster's residents commute to Essex County?" On the horizontal or To axis, locate the column labeled Essex. On the vertical or From axis, locate the row labeled Lancaster. The intersection of the row and column, 62, is the number of Lancaster's residents that commute to Essex County.





III. Economic Profile

Where population demographics provide information on underlying trends within the labor force, economic data provides more detailed information on the likely demand for specific types of workers. Some key features of WIA XIII's economy are as follows:

- Starting in 2001, unemployment rates fell below the statewide average. In 2002, WIA XIII's unemployment rate was 3.4 percent, 0.7 percent below the statewide average of 4.1 percent.
- Employment is concentrated in Government (20.2 percent), Retail Trade (13.9 percent), Health Care (9.0 percent), and Accommodation/Food (8.9 percent).
- Most recent new hires have been in Retail Trade (33.4 percent), Services (28.7 percent), and Construction (11.8 percent).
- · Overall personnel turnover is slightly above the statewide average (13.7 percent vs. 13.2 percent). Personnel turnover tends to be highest in Agriculture, Forestry, and Fishing (19.2 percent), followed by Retail Trade (16.4 percent), Construction (15.3 percent), Services (13.7 percent), and Manufacturing (13.6 percent).
- Weekly wages were highest in Federal Government (\$1,170), followed by Utilities (\$1,022), Professional/ Technical (\$913), Management (\$783), Finance/Insurance (\$708), and Information (\$686).

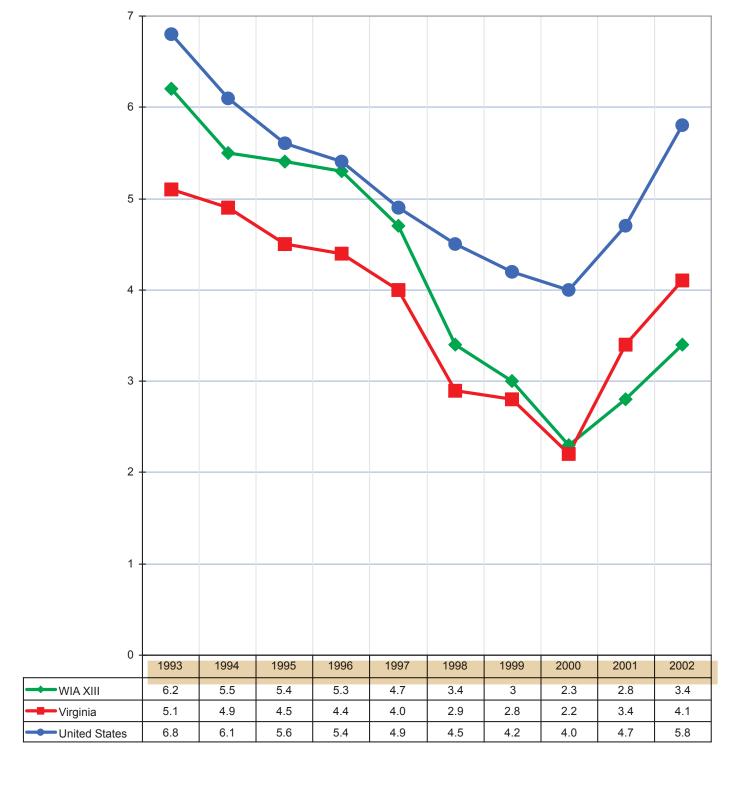
- · Industries with the largest proportion of workers at or near retirement age (55 and above) are Mining (26.4 percent), Agriculture, Forestry, and Fishing (17.6 percent), Wholesale Trade (17.1 percent), and Manufacturing (16.2 percent).
- Employment projections indicate that between 1998 and 2008, most employment growth will occur in Services (3,396 additional jobs), Retail Trade (978 additional jobs), and Local Government (298 additional jobs). In contrast, Agriculture, forestry, and Fishing and Federal Government are projected to loose -341 and -79 jobs respectively.
- Employment projections also indicate that between 1998 and 2008, the biggest growth in occupational employment will be in Cashiers (1,060 openings), Salespersons (560 openings), Waiters (510 openings), and Secondary School Teachers (430). Alternatively, the biggest declines in occupational employment will be in Farm Equipment Operators, Sewing Machine Operators, Production Inspectors, and Textile Machine Operators.
- Based on January 2004 Unemployment data, the largest pools of available workers are in the Construction and Extraction, Office and Administrative Support, Transportation and Materials Moving, and Production occupations.

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Unemployment Rate Trends







Employers by Size of Establishment

Number of Employees	WIA XIII	Virginia
0 - 4	5,265	107,195
5 - 9	1,981	35,763
10 - 19	1,309	25,141
20 - 49	883	18,074
50 - 99	252	6,136
100 - 249	128	3,388
250 - 499	27	1,029
500 - 999	12	409
1000 +	8	229
TOTAL	9,865	197,364

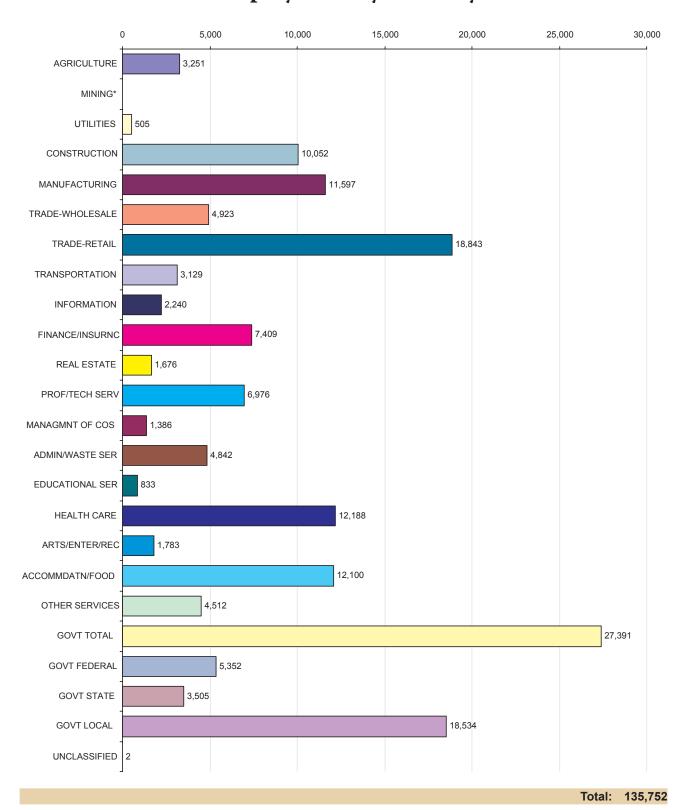
Employment by Size of Establishment

Number of Employees	WIA XIII	Virginia
0 - 4	10,422	188,377
5 - 9	13,296	238,634
10 - 19	17,750	340,363
20 - 49	26,711	553,221
50 - 99	17,149	422,392
100 - 249	18,565	503,348
250 - 499	8,952	352,727
500 - 999	7,434	274,493
1000 +	19,319	543,583
TOTAL	139,598	3,417,138





Employment by Industry



^{*} Nondisclosed data

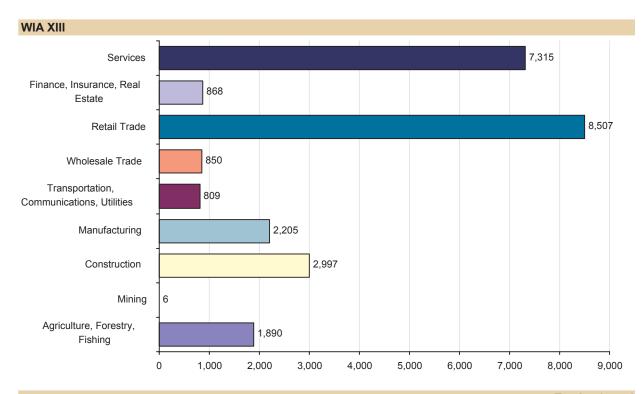
Source: Covered Employment and Wages, annualized 2002.

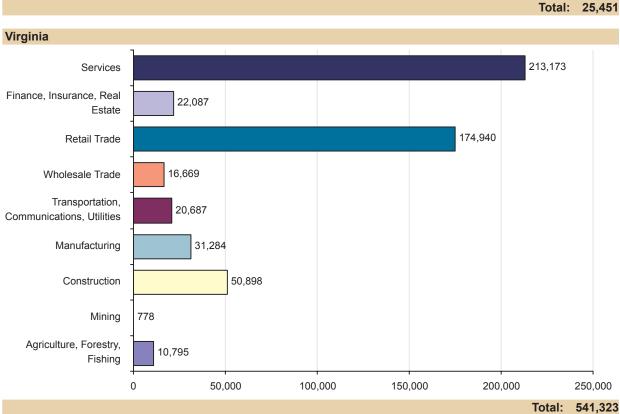
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New Hires by Industry

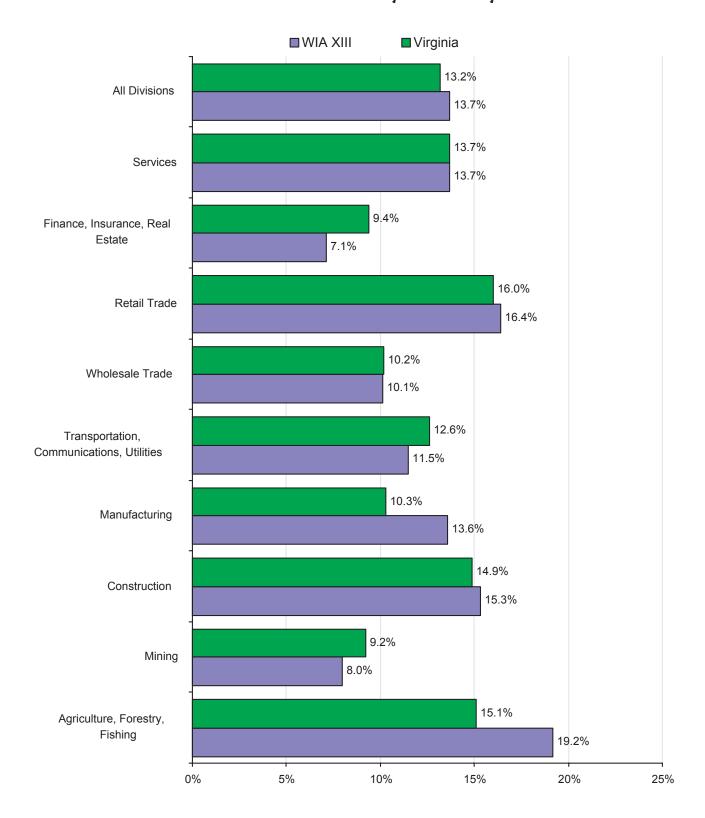








Turnover by Industry

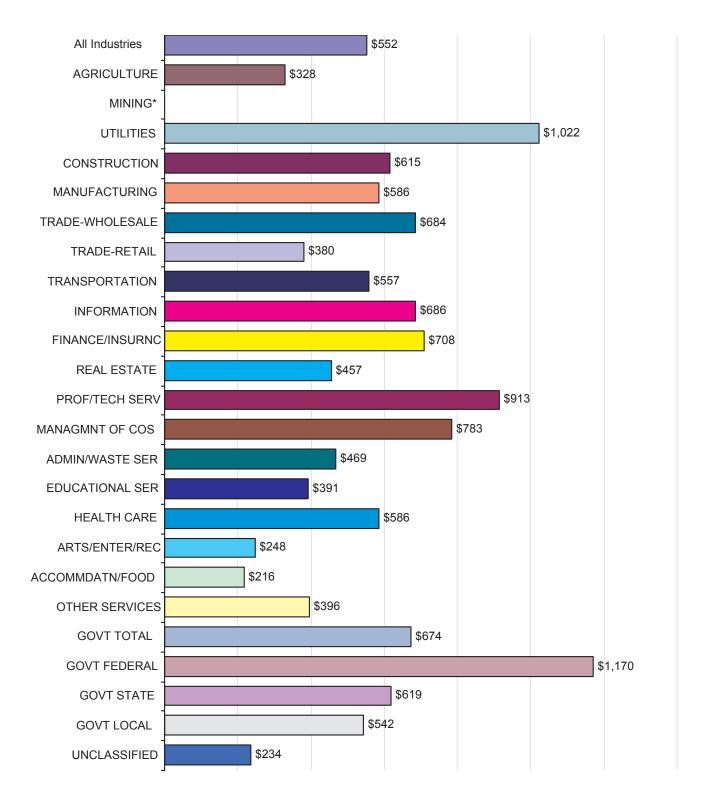


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Average Weekly Wage by Industry



^{*} Nondisclosed data

Source: Covered Employment and Wages, annualized 2002.





Age of Workers by Industry

WIA XIII Virginia

	14 - 18	19 - 21	22 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 99	14 - 99
T. (a) F. (a) L. (b)	5,947	7,345	7,020	22,815	26,990	21,084	10,972	4,118	106,291
Total Employment	106,356	162,652	180,601	659,050	739,013	576,728	282,064	81,995	2,788,457
Agriculture, Forestry, and	235	229	208	672	801	572	316	264	3,295
Fishing	2,219	3,048	3,158	9,842	9,481	6,372	2,705	1,600	38,424
Mining	0	2	1	13	29	20	19	5	91
Mining	22	221	366	1,702	2,803	3,498	1,129	136	9,876
Construction	266	608	696	2,354	2,744	1,745	808	302	9,523
Construction	3,907	10,799	13,521	50,770	61,204	41,178	18,359	6,009	205,745
Manufacturing	143	483	624	2,604	3,756	3,298	1,591	520	13,018
Manufacturing	2,142	9,334	14,693	72,949	106,504	94,364	46,938	7,579	354,504
Transportation, Commu-	68	163	214	985	1,428	1,200	545	170	4,772
nications, and Utilities	1,059	4,542	8,097	42,450	52,051	40,960	16,851	3,199	169,208
Wholesale Trade	87	254	310	1,396	1,724	1,392	751	317	6,229
WilloleSale Trade	1,691	4,449	6,486	33,407	43,317	32,948	15,708	4,557	142,564
Retail Trade	3,839	3,337	2,264	5,280	5,765	4,219	2,382	1,010	28,095
Retail ITade	67,335	76,880	57,338	136,252	130,099	94,331	48,135	20,155	630,522
Finance, Insurance, and	118	523	850	2,864	2,292	1,679	820	192	9,336
Real Estate	1,775	7,281	13,158	53,760	56,683	42,503	20,070	5,079	200,308
Services	1,191	1,747	1,852	6,649	8,453	6,958	3,742	1,339	31,931
Services	26,206	46,097	63,782	257,918	276,866	220,571	112,170	33,682	1,037,291

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Total Employment by Industry

	Е	mploymen	t	Percent	Change
	Esti- mated 1998	Pro- jected 2008	Change	Total	Annual
Total All Industries	48,045	53,048	5,003	10.41%	1.00%
Agriculture, Forestry and Fishing, Total	4,042	3,701	-341	-8.44%	-0.88%
Mining, Total	69	62	-7	-10.14%	-1.06%
Construction, Total	2,349	2,566	217	9.24%	0.89%
Manufacturing, Total	9,209	9,272	63	0.68%	0.07%
Durable Goods Manufacturing, Total	2,998	2,878	-120	-4.00%	-0.41%
Nondurable Goods Manufacturing, Total	6,211	6,394	183	2.95%	0.29%
Transportation and Public Utilities, Total	2,160	2,304	144	6.67%	0.65%
Transportation, Total	1,508	1,607	99	6.57%	0.64%
Communications and Utilities, Total	652	697	45	6.90%	0.67%
Wholesale and Retail Trade, Total	9,958	11,013	1,055	10.59%	1.01%
Wholesale Trade, Total	1,292	1,369	77	5.96%	0.58%
Retail Trade, Total	8,666	9,644	978	11.29%	1.08%
Finance, Insurance, and Real Estate, Total	1,621	1,730	109	6.72%	0.65%
Services, Total	13,962	17,358	3,396	24.32%	2.20%
Federal Government (Except Post Office)	872	793	-79	-9.06%	-0.95%
State Government (Except Education and Hospitality)	1,389	1,537	148	10.66%	1.02%
Local Government (Except Education and Hospitality)	2,414	2,712	298	12.34%	1.17%

Employment by Major Occupation Group

		Employmen		0	penings	
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total
Total, All Occupations	47,995	53,008	10.44%	11,520	5,013	16,520
Executive, Administrative and Managerial Occupations	2,882	3,203	11.14%	510	321	840
Professional Specialty Occupations	8,670	10,464	20.69%	1,590	1,794	3,390
Marketing and Sales Occupations	4,964	5,609	12.99%	1,580	645	2,220
Administrative Support Occupations, Clerical	6,061	6,480	6.91%	1,300	419	1,730
Service Occupations	7,735	9,043	16.91%	2,420	1,308	3,720
Agriculture, Forestry, and Fishing Occupations	3,908	3,663	-6.27%	1,070	-245	1,070
Precision Production, Craft and Repair Occupations	4,864	5,120	5.26%	1,060	256	1,320
Operators, Fabricators, and Laborers	8,911	9,426	5.78%	1,990	515	2,470

Source: Industry and Occupational Employment Projections, 1998 — 2008. Projections are for the Northeast Virginia Non-metropolitan area (Region 3)





Growth Occupations

	E	Employment	t	Оре	enings		Wages
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total	Median Annual Wage
Systems Analysts	141	250	77.30%	10	109	120	\$58,027
Home Health Aides	261	384	47.13%	40	123	160	\$16,719
Nursing Aides & Orderlies	655	864	31.91%	90	209	300	\$18,199
Registered Nurses	650	816	25.54%	110	166	280	\$46,837
Meat, Poultry & Fish Cutters, Hand	888	1,098	23.65%	210	210	420	\$27,628
Teachers, Secondary School	771	948	22.96%	250	177	430	\$37,890
Cashiers	1,758	2,048	16.50%	770	290	1,060	\$14,602
Waiters & Waitresses	732	837	14.34%	400	105	510	\$13,583
Salespersons, Retail	1,201	1,350	12.41%	410	149	560	\$17,910
Teachers, Elementary	848	948	11.79%	200	100	300	\$36,328
General Managers & Top Executives	1,250	1,387	10.96%	220	137	350	\$56,883

Declining Occupations

		Employmen	t	Openings			
	Estimated 1998	Projected 2008	% Change	Replacements	Growth	Total	
Sewing Machine Oprs, Garment	246	153	-37.80%	30	-93	30	
Textile Machine Oprs/Tndrs	103	67	-34.95%	20	-36	20	
Child Care Workers, Private	94	63	-32.98%	40	-31	40	
Production Inspectors, Graders	180	143	-20.56%	40	-37	40	
Farm Equipment Operators	887	788	-11.16%	270	-99	270	
Store Clerks, Sales Floor	456	424	-7.02%	70	-32	70	

Source: Industry and Occupational Employment Projections, 1998 — 2008. OES Wage Survey Data. Projections are for Region 3. Wages are for WIA 13.

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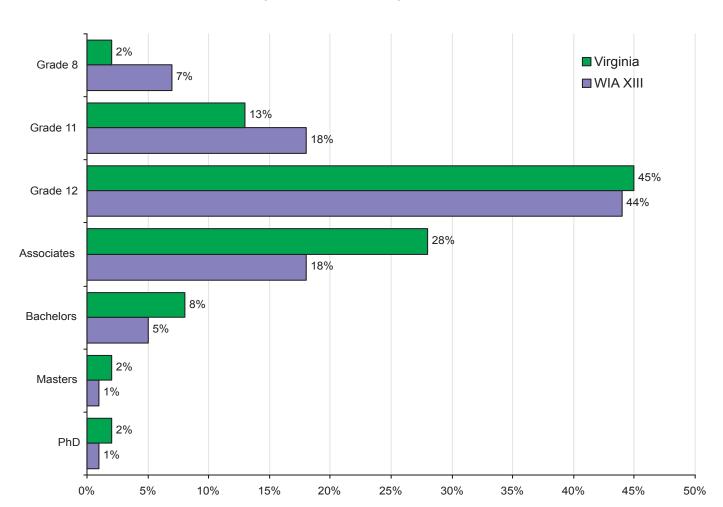


Characteristics of the Unemployed

Marketing the local labor force to new or expanding companies requires information about potential employees that would be available for immediate hire. Monthly data, collected as unemployed individuals apply for unemployment insurance benefits, provide information on various characteristics of the unemployed claimants. Demographic characteristics are recorded for age, race, sex, and education level. In addition, the industry of last employment and the occupation held in the most recent job is also part of the information collected when applicants register for unemployment insurance benefits.

As seen in the chart below, 44% of the unemployed claimants in Bay Consortium have a grade 12 education level, as compared to only 41% of claimants statewide. On the other hand, at the level of Associates degree and higher, Bay Consortium has a smaller percentage of claimants relative to the state. While Bay Consortium has 2,582 unemployed claimants with at least an Associates degree, some of the other regions of the state have a higher ratio of claimants with post-secondary education.

Unemployed Claimants by Education Level





Characteristics of the Unemployed

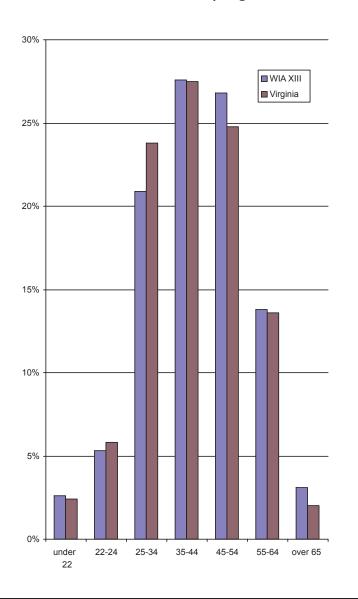
(continued)

Construction and Extraction workers comprise the largest category of unemployed beneficiaries in Bay Consortium, accounting for almost 14% of total claimants in February 2004. Office and Administrative Support and Transportation and Material Handling workers also account for a significant share of the unemployed claimants, collectively representing over 22% of the total. Employers requiring workers in these occupation categories will find an abundant supply.

Claimants by Occupation

OCCUPATION	Number of Claimants
Management	605
Business and Financial Operations	222
Computer and Mathematical	232
Architecture and Engineering	96
Life, Physical, and Social Science	30
Community and Social Services	42
Legal	12
Education, Training, and Library	157
Arts, Design, Entertainment, Sports, and Media	118
Healthcare Practitioners and Technical	82
Healthcare Support	188
Protective Service	135
Food Preparation and Serving Related	906
Building and Grounds Cleaning and Maintenance	663
Personal Care and Service	204
Sales and Related	671
Office and Administrative Support	1,208
Farming, Fishing, and Forestry	678
Construction and Extraction	1,375
Installation, Maintenance, and Repair	310
Production	968
Transportation and Material Moving	1,053
Military Specific	13
SOC INA	-
TOTAL	9,968

Claimants by Age





IV. Education Profile

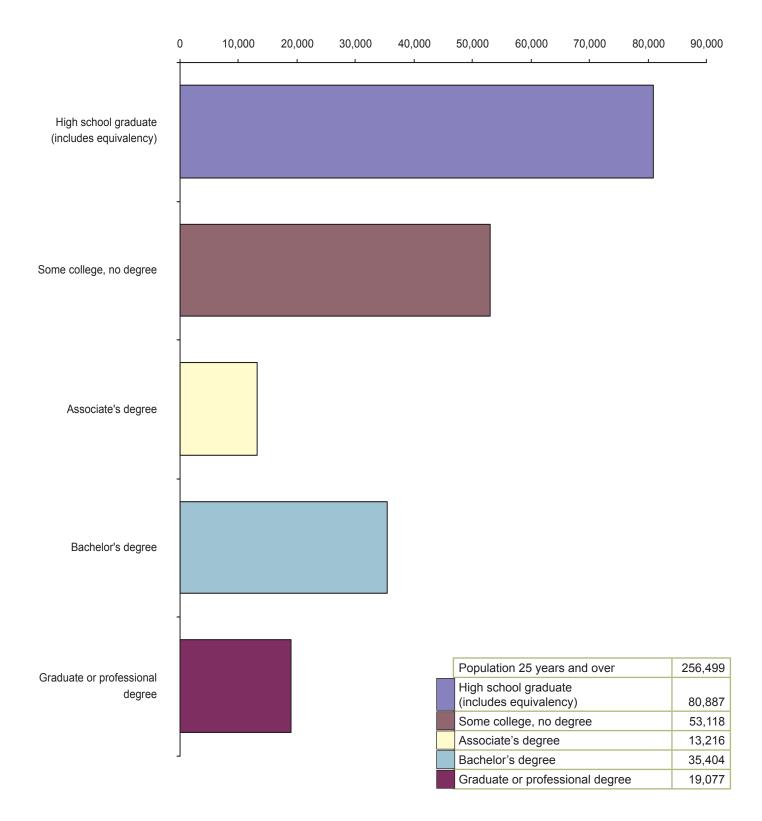
Education data describe the human capital embodied in the current labor force and provide insight into the education and training that will be required to fill the ranks of the future labor force. Some key features of the WIA XIII's education and training environment are as follows:

- Educational attainment at the baccalaureate level and above is low relative to the statewide average.
- An assessment of the occupation-driven demand for local training needs indicates that between 1998 and 2008 the greatest demand for graduates from:
 - *Post-secondary vocational programs* will be in Licensed Practical Nursing.
 - Associate's degree programs will be in Registered Nursing.
 - Baccalaureate degree programs will be in Elementary Teacher Education, and General Education
- An assessment of the occupation-driven demand for worker skills indicates that between 1998 and 2008 there will be a slight increase in required writing skills.





Education Level



Source: 2000 Census.





Occupation-Driven Training Projection

In this section we use Virginia Employment Commission's (VEC's) occupational employment projections for Region 3 – Northeast Virginia, in combination with a crosswalk developed by the National Crosswalk Service Center (NCSC) to "map" occupations into their prerequisite education and training programs.² Often these are many-to-many relationships where one occupation maps into several alternative education and training programs, and one program serves as a conduit into multiple occupations. The analysis is then further refined by using a classification scheme developed by the Bureau of Labor Statistics (BLS) to "sort" occupations according to the minimum degree or award typically required for employment in that occupation.3 Through this combination of steps, we are able to use VEC's occupational employment projections to predict the occupation-driven demand for specific education and training programs

within the Northeast Virginia Region.⁴ The method used to accomplish this task is not new and has been successfully employed in earlier studies conducted in several states, including Virginia.⁵

The table that follows depicts the annual occupation-driven demand for training needs in Region 3 – Northeast Virginia for the 1998 to 2008 period, as derived from this analysis. As these data show, the largest numbers of needed graduates are in business (e.g., Business Administration and Management, Finance), education (e.g., General Education), and health (e.g., Registered Nurse and Licensed Practical Nurse).

⁴ More formally, the demand for education and training programs is calculated as:

DCIPi = ∑Dcipji

Where,

Dcipji = (SOCj)(GCIPi/∑Gcipij)

and,

DCIPi = the annual demand for instructional program i

\(\text{Dcipii} = \text{the annual demand for instructional program i across all occupation(s) i} \)

SOCj = the projected annual openings for occupation j

GCIPi = Virginia graduates from instructional program i (for academic year 2000-01)

∑Gcipij = Virginia graduates from all instructional program(s) i (for academic year 2000-01) related to occupation j

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Region 3 – Northeast Virginia is comprised of Accomack, Caroline, Essex, King and Queen, King William, Lancaster, Middlesex, Northampton, Northumberland, Richmond, and Westmoreland counties.

² The National Crosswalk Service Center (NCSC) is funded by the U.S. Department of Labor, Employment and Training Administration. This crosswalk identifies the prerequisite instructional programs necessary for employment in 651 specific occupations.

The Bureau of Labor Statistics classifies occupations according to eleven education and training categories. Four of these involve on-the-job training or work experience only and the remaining seven require some level of postsecondary education (i.e., first-professional degree, doctoral degree, master's degree, bachelor's degree, associate's degree, or postsecondary vocational training). For purposes of this study, we restrict the analysis to occupations that fall within these seven education and training categories.

⁵ Similar methods are used in at least seven states (California, Georgia, Idaho, Illinois, New Jersey, Utah, and Virginia) to project anticipated education and training demands. For an excellent exposition of this method see, William J. Drummond and Jan L Youtie, "Occupational Employment, Demand for College Graduates, and Migration: A Statewide View," a report to the Board of Regents, University System of Georgia, 1999. For an example of how this method has been used previously in Virginia see, A. Fletcher Mangum, "System-Wide Needs Assessment for Virginia Education," State Council of Higher Education for Virginia, March 28, 2002, p.90.





Annual Occupation-Driven Training Needs in the Northeast Virginia Region, 1998 – 2008

Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Accounting					6			6
Administrative Assistant / Secretarial Science, General							3	3
Agricultural Business and Management, General				1				1
Agricultural Business / Agribusiness Operations				1				1
Animal Sciences, General				1				1
Art Teacher Education					2			2
Auto / Automotive Mechanic / Technician							9	9
Bilingual/Bicultural Education					1			1
Business Administration and Management, General				43	2			45
Business Computer Programming / Programmer					1			1
Business Systems Networking and Telecommunications						1		1
Child Care and Guidance Workers and Managers, General					6			6
Child Care Provider / Assistant					3			3
Child Care Services Manager					1			1
City/Urban, Community and Regional Planning			2					2
Civil Engineering, General					2			2
Communication Disorders, General			1					1
Computer and Information Sciences, General					7			7
Computer Engineering					2			2
Computer Programming					2			2
Computer Teacher Education					1			1
Cosmetologist							2	2
Counselor Education Counseling and Guidance Services			3					3
Dental Hygienist						3		3
Dentistry (DDS, DMD)	2							2







Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Education Administration and Supervision, General				2				2
Education, General				3	30			33
Electrical and Electronic Engineering – Related Tech / Technician						1		1
Electrical, Electronic and Communications Engineering Tech / Technician						1		1
Electrical, Electronics and Communication Engineering					2			2
Elementary Teacher Education					17			17
Emergency Medical Tech / Technician							2	2
Engineering / Industrial Management				3				3
English Teacher Education					2			2
Farm and Ranch Management				1				1
Finance, General				5	4			9
Health and Physical Education, General					1			1
Health Teacher Education					1			1
Human Resources Management				1	2			3
Information Sciences and Systems					5	2		7
Insurance Marketing Operations					2			2
International Business				1				1
Investments and Securities					1			1
Junior High / Intermediate / Middle School Teacher Education					1			1
Law (LLB, JD)	3							3
Library Science / Librarianship			2					2
Management Information Systems and Business Data Processing					3	3		6
Mathematics Teacher Education					2			2
Mechanical Engineering					1			1
Medical Administrative Assistant / Secretary							1	1
Medical Records Tech / Technician						1		1



Education Profile

Program	First Professional	Doctoral Degree	Master's Degree	Work Experience plus degree	Bachelor's Degree	Associate's Degree	Postsecondary Vocational Training	Total
Medicine (MD)	6					-	-	6
Music Teacher Education					3			3
Nursing (R.N. Training)						23		23
Nursing Science (Post-R.N.)						1		1
Nursing, Other						3		3
Occupational Therapy					1			1
Organizational Behavior Studies					1			1
Osteopathic Medicine (D.O.)	1							1
Paralegal/Legal Assistant						2		2
Pharmacy (B. Pharm., Pharm D.)	2							2
Physical Education Teaching and Coaching					7			7
Physical Therapy			1					1
Practical Nurse (LPN Training)							15	15
Psychiatric / Mental Health Services Technician							1	1
Psychology, General			2					2
Public Administration				3				3
Purchasing, Procurement and Contracts Management					2			2
Reading Teacher Education					4			4
Real Estate					1		1	2
Respiratory Therapy Technician						1		1
Science Teacher Education, General					1			1
Secondary Teacher Education					5			5
Social Science Teacher Education					1			1
Special Education, General					3			3
Speech-Language Pathology			1					1
Speech-Language Pathology and Audiology			2					2
Teacher Education, Specific Academic and Vocational Programs					2			2
Technology Teacher Education / Industrial Arts Teacher Ed					1			1
Trade and Industrial Teacher Education (Vocational)					1			1
Totals	14	0	14	65	143	42	34	312

Virginia Employment Commission



Work Skills Projection

In this section we use the VEC's occupational employment projections for Region 3 – Northeast Virginia, in combination with occupational skills profiles developed by ACT, to identify the skill sets that will be required to fill projected annual job openings within the region. The skills categories addressed in this analysis are Applied Mathematics, Applied Technology, Listening, Locating Information, Observation, Reading for Information, Teamwork, and Writing. A description of each category, the skills levels associated with it, and the proportion of projected annual job openings that fall within each skill level follow.

Applied Mathematics

The *Applied Mathematics* assessment measures a person's skill in using mathematical reasoning to solve work-related problems. ACT defines the skills levels associated with this category as follows.

Level 3:

- Perform basic mathematical operations using whole numbers and decimals.
- Convert a number from one form into another using whole numbers, fractions, decimals, or percentages.
- Solve problems that are straightforward, involving a single type of mathematical operation.
- Translate easily from a verbal setup to a mathematical equation when all the information needed to solve the problem is provided in logical order and no unrelated information is included.

Level 4 (in addition to requirements for previous levels):

- Perform one or two mathematical operations using several positive or negative numbers.
- Add commonly known fractions, decimals, or percentages, or add three fractions that share a common denominator.
- Calculate averages, simple ratios, proportions, and rates, using whole numbers and decimals.

- Reorder verbal information before performing calculations.
- Determine which operations to perform and in what order.
- Read a simple chart or graph to obtain the information needed to solve a problem.

Level 5 (in addition to requirements for previous levels):

- Look up and calculate single-step conversions within English or non-English systems of measurement or between systems of measurement.
- Calculate using mixed units and several steps of logic.
- Calculate perimeters and areas of basic shapes.
- Calculate percentage discounts and markups.
- Determine what information, calculations, and unit conversions are needed to find a solution.

Level 6 (in addition to requirements for previous levels):

- Calculate using negative numbers, fractions, ratios, percentages, and mixed numbers.
- Calculate multiple rates for comparison or use in other calculations.
- Find basic areas and volumes of rectangular solids.
- Identify and correct errors in calculations.
- Solve problems involving considerable setup and multiple-step calculations or conversions.

Level 7 (in addition to requirements for previous levels):

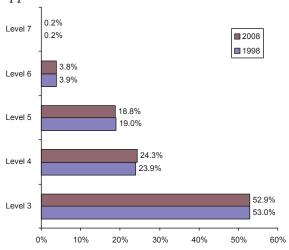
- Calculate using multiple steps of logic.
- Calculate multiple areas and the volumes of spheres, cylinders, and cones.
- Solve problems with more than one unknown.
- Solve problems involving nonlinear functions, such as rates of change.

¹ The occupational skills profiles used in this analysis were provided by ACT. ACT is an independent, non-profit organization that specializes in research and assessment related to education and work. These profiles are based on actual ACT *WorkKeys* assessments of thousands of employed individuals nationally. They represent the most comprehensive and current measure of the work skills required for specific occupations.

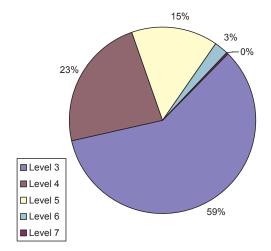


- Calculate by applying basic statistical concepts.
- Derive information needed to solve problems if incomplete or implicit information is presented.

The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Applied Mathematics* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 *Applied Mathematics* skills.



Proportion of Jobs in Northeast Virginia by Required Skill Level – Applied Mathematics



Annual Openings in Northeast Virginia by Required Skill Level – Applied Mathematics

Applied Technology

The Applied Technology assessment measures a

person's skill in using the basic principles of mechanics, electricity, fluid dynamics, and thermodynamics to solve problems with machines, equipment, and structures found in the workplace. ACT defines the skills levels associated with this category as follows.

Level 3:

- Understand the operation of basic hand tools, simple machine components, and uncomplicated systems, such as piping systems, simple electrical heaters, or other equipment found in the home, school, or workplace.
- Apply elementary principles underlying the operation of physical systems, such as the workings of plumbing components or simple electrical systems.

Level 4 (in addition to requirements for previous levels):

- Understand the operation of moderately complex tools, machines, and systems, such as appliances, pulley-driven equipment, or piping systems that carry more than one fluid.
- Apply elementary principles underlying the operation of physical systems, such as a block and tackle or cooling fins.

Level 5 (in addition to requirements for previous levels):

- Use the basic principles of mechanics, electricity, thermodynamics, and fluid dynamics in moderate and advanced applications.
- Understand complex machines and systems, such as the operation of gasoline engines, complex appliances, or an electrical system in a building.

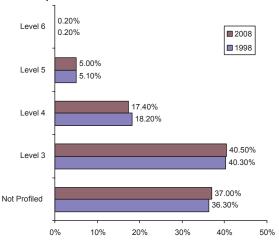
Level 6 (in addition to requirements for previous levels):

- Use principles of mechanics, electricity, thermodynamics, and fluid dynamics interacting in advanced applications such as air conditioning units.
- Troubleshoot complex systems in which a variety of mechanical, electrical, thermal, or flow faults are potential sources of difficult problems.

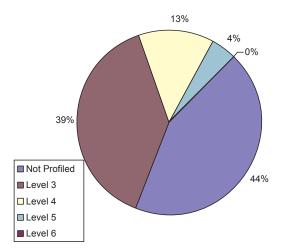
The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Applied Technology* skills level, as determined



by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 *Applied Technology* skills. The large "Not Profiled" proportion indicates that ACT has not profiled many of these occupations with respect to *Applied Technology* skills. As a result, it is not possible to include them in the analysis.



Proportion of Jobs in Northeast Virginia by Required Skill Level – Applied Technology



Annual Openings in Northeast Virginia by Required Skill Level – Applied Technology

Listening

The *Listening* portion of the *Listening* and *Writing* assessment measures a person's skill in listening to and conveying information. ACT defines the skills levels associated with this category as follows.

Level 1:

- Write down a small amount of useful information based on a spoken communication.
- Give clues to the gist of the situation or provide sources of further information, but do not include enough information to give the receiver a correct understanding of the situation described in the message.

Level 2 (in addition to requirements for previous levels):

- Correctly write down the basic ideas of a spoken message.
- Give a fair amount of useful information, but may miss some of the important details or incorrectly record some of the information.

Level 3 (in addition to requirements for previous levels):

- Listen to a spoken communication and record messages that are basically correct.
- Present all the primary details and the relationships among them correctly, but may miss one or two pieces of important information.

Level 4 (in addition to requirements for previous levels):

- Accurately convey the central idea of a spoken communication.
- Correctly record all the important information and the relationships among pieces of information, but may miss or incorrectly record some details or include irrelevant information.

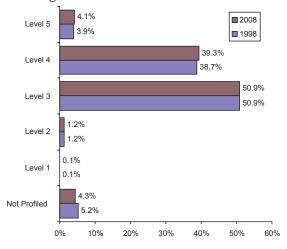
Level 5 (in addition to requirements for previous levels):

- Correctly record all the important information and the relationships among pieces of information from a spoken communication.
- Use supporting details to convey insight into the particular situation the message involves.

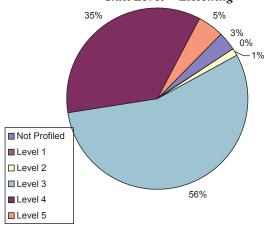
The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Listening* skills level, as determined by the ACT occupation skills profiles. The second figure provides a



similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 and Level 4 *Listening* skills.



Proportion of Jobs in Northeast Virginia by Required Skill Level – Listening



Annual Openings in Northeast Virginia by Required Skill Level – Listening

Locating Information

The *Locating Information* assessment measures a person's skill in using workplace graphics such as diagrams, floor plans, tables, charts, graphs, forms, and instrument gauges. ACT defines the skills levels associated with this category as follows.

Level 3:

- Find one or two pieces of information in a graphic.
- Fill in one or two pieces of information that are missing from a graphic.

Level 4 (in addition to requirements for previous levels):

- Find several pieces of information in graphics.
- Summarize and/or compare information and trends in a single graphic.
- Summarize and/or compare information and trends among more than one graphic by determining the relationships among the graphics.

Level 5 (in addition to requirements for previous levels):

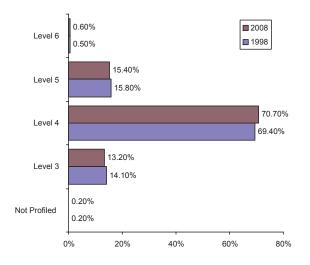
- Summarize and/or compare information and trends in a single graphic.
- Sort through distracting information to summarize and/or compare information and trends presented in more than one workplace graphic.

Level 6 (in addition to requirements for previous levels):

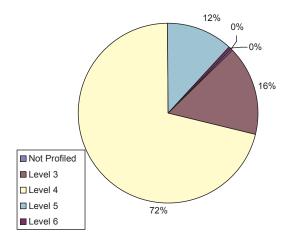
- Draw conclusions from the information presented in very detailed graphics.
- Apply information from these types of graphics to specific situations.
- Analyze data within these types of graphics to make decisions and/or predictions requiring judgments based on the information presented.

The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Locating Information* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the vast majority of jobs will require workers with Level 4 *Locating Information* skills.





Proportion of Jobs in Northeast Virginia by Required Skill Level – Locating Information



Annual Openings in Northeast Virginia by Required Skill Level – Locating Information

Observation

The *Observation* assessment measures a person's skill at noticing details and paying attention to instructions and demonstrations. The following is a description of the skills levels associated with this area.

Level 3:

- Pay attention.
- Watch and listen to a strongly cued demonstration or set of instructions.
- Recall a few strongly reinforced details of a process or procedure.

Level 4:

- Sustain focused attention on the demonstrated instructions, process, or procedures.
- Select and attend to important details.
- Recall a few important, moderately reinforced details about the demonstrated process or procedure.

Level 5:

- Focus attention on and recall several important aspects of the information presented.
- Ignore irrelevant background information through selective attention to important details.
- Maintain attention to detail.
- Recall several important details about unfamiliar material.

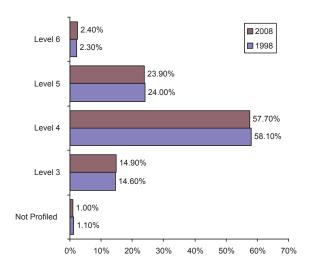
Level 6:

- Notice and remember several details that are relevant to the process or procedure being shown.
- Take in and recall incoming sensory information so it can be used to make predictions, comparisons, or evaluations.
- Visualize how a detail or task fits into the entire process or procedure demonstrated.
- Interpret if-then and cause-effect relationships.

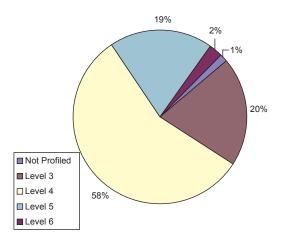
The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Observation* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Observation* skills.



Education Profile



Proportion of Jobs in Northeast Virginia by Required Skill Level – Observation



Annual Openings in Northeast Virginia by Required Skill Level – Observation

Reading for Information

The *Reading for Information* assessment measures a person's skill in reading and using work-related information including instructions, policies, memos, bulletins, notices, letters, manuals, and governmental regulations. ACT defines the skills levels associated with this category as follows.

Level 3:

- Identify uncomplicated key concepts and simple details.
- Recognize the proper placement of a step in a sequence of events, or the proper time to perform a task.

- Identify the meaning of a word that is defined within the document.
- Identify the meaning of a simple word that is not defined within the document.
- Recognize the application of instructions given in the document to situations that are also described in the document.

Level 4:

- Identify important details that are less obvious than those in Level 3.
- Recognize the application of more complex instructions, some of which involve several steps, to described situations.
- Recognize cause-effect relationships.
- Determine the meaning of words that are not defined in the document.

Level 5:

- Identify the paraphrased definition of a technical term or jargon that is defined in the document.
- Recognize the application of technical terms or jargon to stated situations.
- Recognize the definition of an acronym that is defined in the document.
- Identify the appropriate definition of a word with multiple meanings.
- Recognize the application of instructions from the document to new situations that are similar to those described in the document.
- Recognize the application of more complex instructions to described situations, including conditionals and procedures with multiple steps.

Level 6:

- Recognize the application of jargon or technical terms to new situations.
- Recognize the application of complex instructions to new situations.
- Recognize, from context, the less common meaning of a word with multiple meanings.
- Generalize from the document situations not described in the document.

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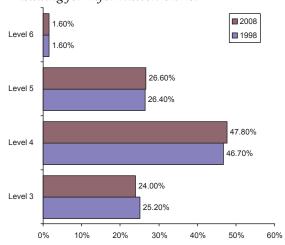


- Identify implied details.
- Explain the rationale behind a procedure, policy, or communication.
- Generalize from the document to a somewhat similar situation.

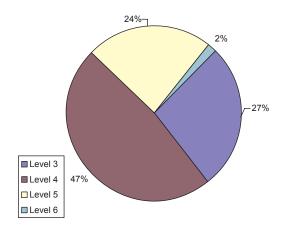
Level 7:

- Recognize the definitions of difficult, uncommon jargon or technical terms, based on the context of the reading materials.
- Figure out the general principles underlying described situations and apply them to situations neither described in nor completely similar to those in the document.

The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Reading for Information* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Reading for Information* skills.



Proportion of Jobs in Northeast Virginia by Required Skill Level – Reading for Information



Annual Openings in Northeast Virginia by Required Skill Level – Reading for Information

Teamwork

The *Teamwork* assessment measures a person's skill in choosing behaviors and/or actions that simultaneously support relationships within a team and lead toward the accomplishment of work tasks. The following is a description of the skills levels associated with this area.

Level 3:

- Identify team goals and ways to work with other team members to accomplish team goals.
- Recognize that a team is having problems finishing a task and identify the cause of those problems.
- Choose actions that actively support the ideas other team members have for accomplishing team goals.
- Recognize the need for trust and dependability in a team environment.

Level 4:

- Identify the organization of tasks and the time schedule that would help the team reach goals efficiently, creatively, and effectively.
- Select approaches that accept direction from other team members in order to complete tasks and to build and keep up good team relations.
- Identify behaviors that show appreciation for the personal and professional qualities of other team members and respect for their diversity.



 Recognize the need for commitment to quality and sensitivity to customers while pursuing the team goal.

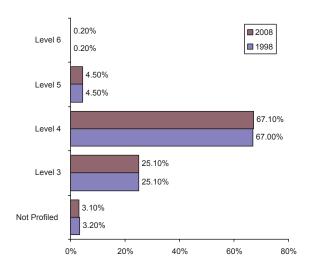
Level 5:

- Identify courses of action that give direction to other team members.
- Determine the best use of team talents to accomplish goals.
- Choose approaches that encourage other team members to improve relationships and/or complete tasks.
- Consider and evaluate the possible effects of alternative behaviors on both team relationships and the completion of tasks.

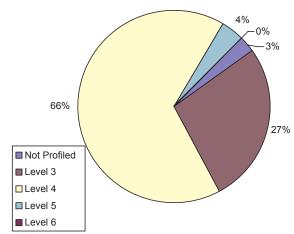
Level 6:

- Identify the focus of team activity and select a new focus if that would help the team meet its goals more effectively.
- Select approaches that show a willingness to give and take direction, as needed, to further team goals (e.g., recognize the organization of team members' tasks that would best serve the larger goals of the team).
- Choose approaches that encourage a team to act as a unit and reach agreement when discussing specific issues.
- Identify actions that would help manage differences of opinion between team members, moving the team toward its goals while valuing and supporting individual diversity.

The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Teamwork* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 4 *Teamwork* skills.



Proportion of Jobs in Northeast Virginia by Required Skill Level – Teamwork



Annual Openings in Northeast Virginia by Required Skill Level – Teamwork

Writing

The *Writing* portion of the *Listening* and *Writing* assessment measures a person's skill in writing work-related messages. ACT defines the skills levels associated with this category as follows.

Level 1:

 Write messages in English that contain a large number of major grammatical, punctuation, spelling, and/or other mechanical errors making the messages very unclear and inconsistent with standard business English.

Level 2:

Education Profile





 Write messages that are generally understandable, but contain many errors in grammar, punctuation, and/or sentence structure making these messages somewhat difficult to comprehend.

Level 3:

 Write messages that are clear, but may include some incomplete sentences and/or errors in grammar and punctuation.

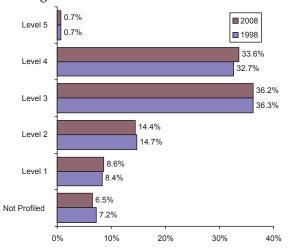
Level 4:

 Write messages that are clear and generally consistent with standard business English, but may contain a few minor errors in grammar and punctuation, and/or the writing style may lack clear organization and appropriate transitions.

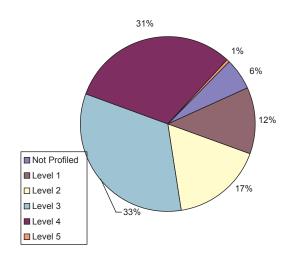
Level 5:

- Write messages that are clear and highly consistent with standard business English.
- Use good sentence structure with a smooth, logical style and no mechanical errors.

The following figure details the percentage of overall jobs in Region 3 – Northeast Virginia in 1998 and 2008 by required *Writing* skills level, as determined by the ACT occupation skills profiles. The second figure provides a similar breakdown for projected annual job openings between 1998 and 2008. These data show that the majority of jobs will require workers with Level 3 and Level 4 *Writing* skills.



Proportion of Jobs in Northeast Virginia by Required Skill Level – Writing



Annual Openings in Northeast Virginia by Required Skill Level – Writing



Graduate Data

As a compliment to the prior two sections which detailed the likely demand for skilled workers in the region, this section provides data on the current supply of graduates within WIA XIII. These data reflect number of graduates, by institution, and by academic program for the 2002-2003 academic year.¹

Institution	Program (CIP Code)	Cert. <1 yr.	Cert. >1 <2 yr.	Assoc.	ВА	1st Prof.	MA	PH.D.
Eastern Shore CC	Mechanical Engineering-Related Technol./ Technicians, Other (15.0899)	0	2	0	0	0	0	0
Eastern Shore CC	Electrical and Electronic EnginRelated Technol./Technicians, Other (15.0399)	0	1	4	0	0	0	0
Eastern Shore CC	Liberal Art and Sciences, General Studies and Humanities, Other (24.0199)	0	0	31	0	0	0	0
Eastern Shore CC	Mental Health Services, Other (51.1599)	72	0	0	0	0	0	0
Eastern Shore CC	Medical Assistant (51.0801)	0	3	0	0	0	0	0
Eastern Shore CC	Management Information Systems and Business Data Processing, General (52.1201)	0	3	0	0	0	0	0
Eastern Shore CC	Administrative Assistant/Secretarial Science, General (52.0401)	0	1	5	0	0	0	0
Eastern Shore CC	Business, General (52.0101)	0	0	6	0	0	0	0
Germanna CC	Special Education, Other (13.1099)	0	2	0	0	0	0	0
Germanna CC	Electrical and Electronic EnginRelated Technol./Technicians, Other (15.0399)	0	1	5	0	0	0	0
Germanna CC	Liberal Art and Sciences, General Studies and Humanities, Other (24.0199)	0	0	179	0	0	0	0
Germanna CC	Protective Services, Other (43.9999)	0	2	7	0	0	0	0
Germanna CC	Graphic and Printing Equipment Operator, General (48.0201)	0	5	0	0	0	0	0
Germanna CC	Mental Health Services, Other (51.1599)	133	0	0	0	0	0	0
Germanna CC	Nursing (R.N. Training) (51.1601)	0	26	47	0	0	0	0
Germanna CC	Management Information Systems and Business Data Processing, General (52.1201)	0	0	24	0	0	0	0
Germanna CC	Business, General (52.0101)	0	0	24	0	0	0	0

¹ Source: State Council of Higher Education for Virginia, Research Report C1, Completion Summary. Where data for 2002-2003 were not available, 2001-2002 data have been used.







		Cert.	Cert. >1			1st		
Institution	Program (CIP Code)	<1 yr.	<2 yr.	Assoc.	ВА	Prof.	MA	PH.D.
Mary Washington Univ	American Studies/Civilization (05.0102)	0	0	0	13	0	0	0
Mary Washington Univ	Computer and Information Sciences, General (11.0101)	0	0	0	39	0	0	0
Mary Washington Univ	Education, General (13.0101)	0	0	0	0	0	23	0
Mary Washington Univ	Elementary Teacher Education (13.1202)	0	0	0	0	0	18	0
Mary Washington Univ	Classics and Classical Languages and Literatures (16.1201)	0	0	0	9	0	0	0
Mary Washington Univ	Foreign Languages and Literatures, General (16.0101)	0	0	0	15	0	0	0
Mary Washington Univ	English Language and Literature, General (23.0101)	0	0	0	96	0	0	0
Mary Washington Univ	Liberal Arts and Sciences/Liberal Studies (24.0101)	0	0	0	14	0	0	0
Mary Washington Univ	Liberal Art and Sciences, General Studies and Humanities, Other (24.0199)	0	0	0	88	0	13	0
Mary Washington Univ	Biology, General (26.0101)	0	0	0	80	0	0	0
Mary Washington Univ	Mathematics (27.0101)	0	0	0	28	0	0	0
Mary Washington Univ	Historic Preservation, Conservation and Architectural History (30.1201)	0	0	0	27	0	0	0
Mary Washington Univ	Multi/Interdisciplinary Studies, Other (30.9999)	0	0	0	36	0	0	0
Mary Washington Univ	Philosophy and Religion (38.9999)	0	0	0	13	0	0	0
Mary Washington Univ	Miscellaneous Physical Sciences, Other (40.0799)	0	0	0	20	0	0	0
Mary Washington Univ	Physics, General (40.0801)	0	0	0	6	0	0	0
Mary Washington Univ	Chemistry, General (40.0501)	0	0	0	10	0	0	0
Mary Washington Univ	Psychology, General (42.0101)	0	0	0	71	0	0	0
Mary Washington Univ	History, General (45.0801)	0	0	0	39	0	0	0
Mary Washington Univ	Geography (45.0701)	0	0	0	16	0	0	0







		Cert.	Cert. >1			1st		
Institution	Program (CIP Code)	<1 yr.	<2 yr.	Assoc.	ВА	Prof.	MA	PH.D.
Mary Washington Univ	Economics, General (45.0601)	0	0	0	19	0	0	0
Mary Washington Univ	Sociology (45.1101)	0	0	0	42	0	0	0
Mary Washington Univ	Political Science, General (45.1001)	0	0	0	38	0	0	0
Mary Washington Univ	International Relations and Affairs (45.0901)	0	0	0	41	0	0	0
Mary Washington Univ	Art History, Criticism and Conservation (50.0703)	0	0	0	13	0	0	0
Mary Washington Univ	Fine Arts and Art Studies, Other (50.0799)	0	0	0	10	0	0	0
Mary Washington Univ	Music, General (50.0901)	0	0	0	8	0	0	0
Mary Washington Univ	Visual and Performing Arts (50.0101)	0	0	0	11	0	0	0
Mary Washington Univ	Business Administration and Management, General (52.0201)	0	0	0	134	0	30	0
Rappahannonock CC	Industrial Production Technol./Technicians, Other (15.0699)	0	3	0	0	0	0	0
Rappahannonock CC	Engineering-Related Technol./Technicians, Other (15.9999)	0	0	4	0	0	0	0
Rappahannonock CC	Liberal Art and Sciences, General Studies and Humanities, Other (24.0199)	0	0	68	0	0	0	0
Rappahannonock CC	Protective Services, Other (43.9999)	0	4	3	0	0	0	0
Rappahannonock CC	Mental Health Services, Other (51.1599)	36	0	0	0	0	0	0
Rappahannonock CC	Nursing (R.N. Training) (51.1601)	0	19	6	0	0	0	0
Rappahannonock CC	Business, General (52.0101)	0	5	19	0	0	0	0
Rappahannonock CC	Administrative Assistant/Secretarial Science, General (52.0401)	0	3	0	0	0	0	0





WIA XIII Training Providers List

Provider Name	Contact Information	List of Programs/Courses
Provider Name	Contact Information	List of Programs/Courses
Alliance Tractor Trailer Training Centers	18259 Green Road Ruther Glen VA 22546 Phone: 804-448-3282	Professional Tractor Trailer Driver
Beta Tech Richmond	7914 Midlothian Trnpk. Richmond VA 23235 Phone: 804-330-0111 Email: directorbtr@tidetech.com	Computer Administrative Specialist Computer Administrative Specialist Computer Network Administrator Computer Network Administrator Computer Support Specialist Computer Support Specialist Medical Assistant Medical Assistant
Beta Tech West	1610 Forest Ave. Suite 214 Richmond VA 23229 Phone: 804-673-7110	Computer Administrative Specialist Computer Network Administrator Medical Assistant
Career Computers Inc	3516 Plank Road Fredericksburg VA 22407 Phone: 540-786-9951 Email: careercomputers@erols.com Web: careercomputers.com	A+ Certification Preparation Fast Track Basic Business Accounting Basic QuickBooks Pro Computer Classes Microsoft Certification System Administrator (MCSA Microsoft Certification System Engineer (MCSE) Network+ Certification Preparation Fast Track Office Administration Office Assistant I, II, and III
Career Training Solutions	4343 Plank Road, Suite 115 Fredericksburg VA 22407 Phone: 540-785-2000 Web: www.careertrainingsolutions.com	Body Spa Wellness Program Electrolysis Program Licensed Practical Nurse Massage Therapy Medical Office Professional Program Phlebotomy Program
CDS Tractor Trailer Training	6200 Jeff-Davis Highway Woodford VA 22580 Phone: 540-582-8200 Email: jballeh@aol.com Web: www.cds4cdl.com	Commercial Driver Class B Commercial Driver Training Class Tractor Trailer Training Class
Eastern Shore Community College	29300 Lankford Highway Melfa VA 23410 Phone: 757-787-5932 Email: esfreem@es.cc.va.us Web: www.es.cc.va.us	College Courses





WIA XIII Training Providers List (continued)

Provider Name	Contact Information	List of Programs/Courses
Fantania Spa Salon and Nail School	1673 Tappahannock Blvd Tappahannock VA 22560 Phone: 804-445-9082	Cosmetology Nail Technology
Mary Washington College	1301 College Ave Fredericksburg VA 22401 Phone: 540-654-1000 Web: www.mwc.edu	College Courses
Mizpah Health Care Center	Route 634 box 70 Locust Hill VA 23092 Phone: 804-758-5260	Certified Nurse Aide Class
New Horizons Computer Learning Center	7501 Boulders View Dr Suite 325 Richmond VA 23225 Phone: 804-327-8663 Email: elewis@nhrichmond.com Web: www.newhorizons.com	Computer Software/Hardware Training
Northern Neck Technical Center	13946 Historyland Highway P.O. Box 787 Warsaw VA 22575 Phone: 804-333-4940 Web: www.northernnecktech.com	Automotive Technology Certified Nursing Assistant Commerical Drivers License, Class B
Rappahannock Electric Cooperative	247 Industrial Ct. Fredericksburg VA 22408 Phone: 540-891-5944 Email: jgilliam@rappelec.com Web: www.rappelec.com	Microsoft Office Computer Classes
Rappahannock Goodwill Industries	1414 Caroline Street Fredericksburg VA 22404 Phone: 540-371-3070 Email: sherryd@fredgoodwill.org Web: www.fredgoodwill.org	Computer Training
Strayer University	4500 Plank Road Fredericksburg VA 22407 Phone: 540-785-8800 Web: www.strayer.edu	College Courses
Synetics Inc	1380 Central Park Blvd Suite 208 Fredericksburg VA 22401 Phone: 540-785-1445 Email: computerlab@synetics.com Web: www.synetics.com	Computer Applications





WIA XIII Training Providers List (continued)

Provider Name	Contact Information	List of Programs/Courses
The Braxton School of Virginia Inc.	4917 August Avenue Richmond VA 23230 Phone: 804-353-4458 Email: braxtonsch@aol.com	Administrative Assistant Computerized Accounting Legal Administrative Assistant Medical Administrative Assistant









V. Summary and Conclusions

Population trends in WIA XIII, as in other parts of the United States, are currently dominated by the aging of the baby-boom generation. Between 2000 and 2010 this demographic phenomena will cause a major increase in the 55 and over population within the region. The net result of this increase will be a significant "graying" of the overall population.

One implication of this is that younger entry-level workers will be in short supply. This should elevate the importance of workforce services in facilitating the efficient and effective use of existing labor resources by getting younger trained workers into the workforce, and retraining or upgrading the skills of older displaced workers.

Another significant trend within WIA XIII has to do with increasing employment in Services. It can be anticipated that employment increases in the Service sector – specifically, education – will drive much of the demand for trained workers between 1998 and 2008.





Average Weekly Wage

Accomack County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	442
AGRICULTURE	257
MINING	D
UTILITIES	1,005
CONSTRUCTION	431
MANUFACTURING	438
TRADE-WHOLESALE	543
TRADE-RETAIL	325
TRANSPORTATION	613
INFORMATION	697
FINANCE/INSURNC	668
REAL ESTATE	333
PROF/TECH SERV	694
MANAGMNT OF COS	D
ADMIN/WASTE SER	450
EDUCATIONAL SER	D
HEALTH CARE	371
ARTS/ENTER/REC	280
ACCOMMDATN/FOOD	222
OTHER SERVICES	273
GOVT TOTAL	673
GOVT FEDERAL	1,090
GOVT STATE	598
GOVT LOCAL	502
UNCLASSIFIED	0

Caroline County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	548
AGRICULTURE	424
MINING	D
UTILITIES	D
CONSTRUCTION	813
MANUFACTURING	569
TRADE-WHOLESALE	687
TRADE-RETAIL	329
TRANSPORTATION	490
INFORMATION	D
FINANCE/INSURNC	670
REAL ESTATE	282
PROF/TECH SERV	375
MANAGMNT OF COS	D
ADMIN/WASTE SER	543
EDUCATIONAL SER	D
HEALTH CARE	412
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	213
OTHER SERVICES	371
GOVT TOTAL	579
GOVT FEDERAL	802
GOVT STATE	600
GOVT LOCAL	501
UNCLASSIFIED	0



Average Weekly Wage

Essex County

King & Queen County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	415
AGRICULTURE	469
MINING	D
UTILITIES	D
CONSTRUCTION	376
MANUFACTURING	472
TRADE-WHOLESALE	568
TRADE-RETAIL	335
TRANSPORTATION	378
INFORMATION	379
FINANCE/INSURNC	621
REAL ESTATE	361
PROF/TECH SERV	593
MANAGMNT OF COS	D
ADMIN/WASTE SER	210
EDUCATIONAL SER	D
HEALTH CARE	475
ARTS/ENTER/REC	153
ACCOMMDATN/FOOD	211
OTHER SERVICES	286
GOVT TOTAL	595
GOVT FEDERAL	711
GOVT STATE	663
GOVT LOCAL	580
UNCLASSIFIED	0

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	495
AGRICULTURE	569
MINING	D
UTILITIES	D
CONSTRUCTION	479
MANUFACTURING	451
TRADE-WHOLESALE	D
TRADE-RETAIL	371
TRANSPORTATION	557
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	D
PROF/TECH SERV	493
MANAGMNT OF COS	D
ADMIN/WASTE SER	750
EDUCATIONAL SER	D
HEALTH CARE	335
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	D
OTHER SERVICES	384
GOVT TOTAL	508
GOVT FEDERAL	643
GOVT STATE	740
GOVT LOCAL	491
UNCLASSIFIED	0





Average Weekly Wage

King George County

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 975 **AGRICULTURE** 511 MINING D UTILITIES D CONSTRUCTION 517 MANUFACTURING 665 TRADE-WHOLESALE 642 TRADE-RETAIL 338 **TRANSPORTATION** 426 **INFORMATION** 807 FINANCE/INSURNC 538 **REAL ESTATE** 396 PROF/TECH SERV 1,136 MANAGMNT OF COS D ADMIN/WASTE SER 798 **EDUCATIONAL SER** D **HEALTH CARE** 433 ARTS/ENTER/REC 291 ACCOMMDATN/FOOD 185 OTHER SERVICES 449 **GOVT TOTAL** 1,168 **GOVT FEDERAL** 1,304 **GOVT STATE** 511 519 **GOVT LOCAL UNCLASSIFIED** 0

King William County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	594
AGRICULTURE	596
MINING	D
UTILITIES	D
CONSTRUCTION	526
MANUFACTURING	1,134
TRADE-WHOLESALE	951
TRADE-RETAIL	364
TRANSPORTATION	551
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	397
PROF/TECH SERV	430
MANAGMNT OF COS	D
ADMIN/WASTE SER	D
EDUCATIONAL SER	D
HEALTH CARE	415
ARTS/ENTER/REC	183
ACCOMMDATN/FOOD	164
OTHER SERVICES	271
GOVT TOTAL	504
GOVT FEDERAL	623
GOVT STATE	563
GOVT LOCAL	496
UNCLASSIFIED	0

Source: Covered Employment and Wage data, Annualized 2002.



Average Weekly Wage

Lancaster County

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 479 **AGRICULTURE** 498 MINING D UTILITIES D CONSTRUCTION 523 **MANUFACTURING** 324 TRADE-WHOLESALE 707 TRADE-RETAIL 370 **TRANSPORTATION** 635 **INFORMATION** 486 FINANCE/INSURNC 684 **REAL ESTATE** 470 PROF/TECH SERV 785 MANAGMNT OF COS D ADMIN/WASTE SER 389 **EDUCATIONAL SER** D **HEALTH CARE** 551 ARTS/ENTER/REC 357 ACCOMMDATN/FOOD 273 OTHER SERVICES 342 **GOVT TOTAL** 493 **GOVT FEDERAL** 626 **GOVT STATE** 642 **GOVT LOCAL** 461 **UNCLASSIFIED** 0

Mathews County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	383
AGRICULTURE	393
MINING	D
UTILITIES	D
CONSTRUCTION	383
MANUFACTURING	463
TRADE-WHOLESALE	459
TRADE-RETAIL	331
TRANSPORTATION	433
INFORMATION	D
FINANCE/INSURNC	444
REAL ESTATE	502
PROF/TECH SERV	540
MANAGMNT OF COS	D
ADMIN/WASTE SER	353
EDUCATIONAL SER	D
HEALTH CARE	315
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	144
OTHER SERVICES	366
GOVT TOTAL	432
GOVT FEDERAL	475
GOVT STATE	550
GOVT LOCAL	424
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Average Weekly Wage

Middlesex County

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 419 **AGRICULTURE** D MINING D UTILITIES D CONSTRUCTION 494 MANUFACTURING 568 TRADE-WHOLESALE 505 TRADE-RETAIL 362 **TRANSPORTATION** 419 **INFORMATION** 392 FINANCE/INSURNC 565 **REAL ESTATE** 428 PROF/TECH SERV 468 MANAGMNT OF COS D ADMIN/WASTE SER 567 **EDUCATIONAL SER** D **HEALTH CARE** 387 ARTS/ENTER/REC 355 ACCOMMDATN/FOOD 200 OTHER SERVICES 344 **GOVT TOTAL** 472 **GOVT FEDERAL** 621 **GOVT STATE** 608 **GOVT LOCAL** 444 **UNCLASSIFIED** 0

Northampton County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	477
AGRICULTURE	302
MINING	D
UTILITIES	D
CONSTRUCTION	406
MANUFACTURING	520
TRADE-WHOLESALE	461
TRADE-RETAIL	290
TRANSPORTATION	592
INFORMATION	D
FINANCE/INSURNC	572
REAL ESTATE	237
PROF/TECH SERV	D
MANAGMNT OF COS	D
ADMIN/WASTE SER	D
EDUCATIONAL SER	D
HEALTH CARE	566
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	191
OTHER SERVICES	344
GOVT TOTAL	423
GOVT FEDERAL	622
GOVT STATE	498
GOVT LOCAL	411
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.



Average Weekly Wage

Northumberland County

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 426 **AGRICULTURE** 530 MINING D UTILITIES D CONSTRUCTION 480 **MANUFACTURING** 545 TRADE-WHOLESALE 417 TRADE-RETAIL 315 **TRANSPORTATION** 429 460 **INFORMATION** FINANCE/INSURNC D **REAL ESTATE** D PROF/TECH SERV 560 MANAGMNT OF COS D ADMIN/WASTE SER 310 **EDUCATIONAL SER** D **HEALTH CARE** 470 ARTS/ENTER/REC 267 148 ACCOMMDATN/FOOD OTHER SERVICES 318 **GOVT TOTAL** 491 **GOVT FEDERAL** 637 **GOVT STATE** 612 **GOVT LOCAL** 474 **UNCLASSIFIED** 0

Richmond County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	493
AGRICULTURE	335
MINING	D
UTILITIES	D
CONSTRUCTION	433
MANUFACTURING	601
TRADE-WHOLESALE	554
TRADE-RETAIL	340
TRANSPORTATION	656
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	160
PROF/TECH SERV	451
MANAGMNT OF COS	D
ADMIN/WASTE SER	287
EDUCATIONAL SER	D
HEALTH CARE	358
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	165
OTHER SERVICES	444
GOVT TOTAL	586
GOVT FEDERAL	671
GOVT STATE	593
GOVT LOCAL	570
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.



Average Weekly Wage

Spotsylvania County

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 550 **AGRICULTURE** 413 MINING D UTILITIES D CONSTRUCTION 652 **MANUFACTURING** 741 TRADE-WHOLESALE 612 TRADE-RETAIL 434 **TRANSPORTATION** 583 **INFORMATION** 724 FINANCE/INSURNC 688 **REAL ESTATE** 448 PROF/TECH SERV 752 MANAGMNT OF COS D ADMIN/WASTE SER 577 **EDUCATIONAL SER** 385 **HEALTH CARE** 447 ARTS/ENTER/REC 281 ACCOMMDATN/FOOD 218 OTHER SERVICES 506 **GOVT TOTAL** 622 **GOVT FEDERAL** 765 **GOVT STATE** 461 **GOVT LOCAL** 633 **UNCLASSIFIED** 234

Stafford County

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	567
AGRICULTURE	343
MINING	D
UTILITIES	D
CONSTRUCTION	634
MANUFACTURING	625
TRADE-WHOLESALE	778
TRADE-RETAIL	392
TRANSPORTATION	546
INFORMATION	732
FINANCE/INSURNC	698
REAL ESTATE	514
PROF/TECH SERV	917
MANAGMNT OF COS	D
ADMIN/WASTE SER	347
EDUCATIONAL SER	341
HEALTH CARE	472
ARTS/ENTER/REC	194
ACCOMMDATN/FOOD	205
OTHER SERVICES	397
GOVT TOTAL	585
GOVT FEDERAL	826
GOVT STATE	634
GOVT LOCAL	575
UNCLASSIFIED	0



Average Weekly Wage

Westmoreland County

INDUSTRY SECTOR 2002 (\$) ****TOTAL**** 405 **AGRICULTURE** 458 MINING D UTILITIES 541 CONSTRUCTION 340 MANUFACTURING 480 TRADE-WHOLESALE 553 TRADE-RETAIL 334 **TRANSPORTATION** 505 **INFORMATION** D FINANCE/INSURNC 505 **REAL ESTATE** 207 PROF/TECH SERV 638 MANAGMNT OF COS D ADMIN/WASTE SER 362 **EDUCATIONAL SER** D **HEALTH CARE** 397 ARTS/ENTER/REC 338 ACCOMMDATN/FOOD 174 OTHER SERVICES 287 **GOVT TOTAL** 459 **GOVT FEDERAL** 630 **GOVT STATE** 463 **GOVT LOCAL** 442 **UNCLASSIFIED** 0

Fredericksburg city

INDUSTRY SECTOR	2002 (\$)
****TOTAL****	564
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	695
MANUFACTURING	635
TRADE-WHOLESALE	738
TRADE-RETAIL	373
TRANSPORTATION	566
INFORMATION	667
FINANCE/INSURNC	966
REAL ESTATE	533
PROF/TECH SERV	739
MANAGMNT OF COS	986
ADMIN/WASTE SER	372
EDUCATIONAL SER	301
HEALTH CARE	779
ARTS/ENTER/REC	200
ACCOMMDATN/FOOD	232
OTHER SERVICES	445
GOVT TOTAL	644
GOVT FEDERAL	940
GOVT STATE	683
GOVT LOCAL	565
UNCLASSIFIED	0



Unemployment Rate Trends

Accomack County

Year	Rate
2002	4.6
2001	4.1
2000	4.0
1999	6.4
1998	6.6

Year	Rate
1997	9.4
1996	9.1
1995	8.2
1994	8.0
1993	8.7

Caroline County

Year	Rate
2002	4.0
2001	3.0
2000	2.2
1999	3.3
1998	5.0

Year	Rate
1997	7.7
1996	8.2
1995	7.5
1994	7.2
1993	8.8

Essex County

Year	Rate
2002	5.1
2001	4.4
2000	3.8
1999	4.6
1998	5.6

Year	Rate
1997	7.3
1996	8.9
1995	7.8
1994	6.6
1993	6.9

King & Queen County

Year	Rate
2002	4.8
2001	3.9
2000	2.9
1999	3.1
1998	3.1

Year	Rate
1997	4.9
1996	5.3
1995	4.9
1994	5.8
1993	7.2

King George County

Year	Rate
2002	2.6
2001	2.0
2000	1.6
1999	1.9
1998	2.5

Year	Rate
1997	3.4
1996	4.1
1995	4.4
1994	4.0
1993	5.4

King William County

Year	Rate
2002	4.0
2001	3.6
2000	1.9
1999	2.4
1998	3.1

Year	Rate
1997	4.4
1996	4.4
1995	3.6
1994	4.6
1993	4.3

Lancaster County

Year	Rate
2002	6.7
2001	8.0
2000	7.8
1999	9.6
1998	10.4

Year	Rate
1997	12.4
1996	14.3
1995	13.8
1994	13.9
1993	14.8

Mathews County

Year	Rate
2002	3.4
2001	2.6
2000	1.7
1999	2.2
1998	2.6

Year	Rate
1997	3.5
1996	3.3
1995	3.6
1994	4.4
1993	4.1





Unemployment Rate Trends

Middlesex County

Year	Rate
2002	1.8
2001	1.7
2000	1.3
1999	2.1
1998	2.1

Year	Rate
1997	3.1
1996	3.5
1995	3.9
1994	5.2
1993	4.7

Northampton County

Year	Rate
2002	5.9
2001	4.5
2000	3.2
1999	4.5
1998	5.4

Year	Rate
1997	6.6
1996	8.2
1995	8.9
1994	6.6
1993	7.3

Northumberland County

Year	Rate
2002	6.1
2001	6.7
2000	6.3
1999	7.7
1998	8.8

Year	Rate
1997	11.1
1996	12.8
1995	12.6
1994	12.8
1993	13.5

Richmond County

Year	Rate
2002	5.4
2001	3.7
2000	4.5
1999	4.5
1998	4.8

Year	Rate
1997	6.3
1996	7.7
1995	6.2
1994	7.0
1993	8.2

Spotsylvania County

Year	Rate
2002	2.2
2001	1.6
2000	1.3
1999	1.6
1998	1.8

Year	Rate
1997	2.9
1996	3.2
1995	3.5
1994	3.7
1993	4.5

Stafford County

Year	Rate
2002	2.4
2001	1.7
2000	1.2
1999	1.5
1998	1.6

Year	Rate
1997	2.1
1996	2.7
1995	3.1
1994	3.1
1993	3.3

Westmoreland County

Year	Rate
2002	4.9
2001	5.0
2000	4.7
1999	5.2
1998	5.5

Year	Rate
1997	7.7
1996	9.5
1995	9.1
1994	9.7
1993	11.0

Fredericksburg city

Year	Rate
2002	6.0
2001	4.0
2000	2.3
1999	3.0
1998	3.6

Year	Rate
1997	3.8
1996	4.2
1995	4.2
1994	4.7
1993	5.9



Population by Age

Accomack County

	1990	2000	2010	2020	2030
0-14	6,270	7,686	7,690	8,339	8,822
15-24	3,876	4,760	5,324	5,311	5,690
25-34	4,508	4,311	4,510	5,223	5,078
35-44	4,320	5,716	4,363	4,681	5,286
45-54	3,345	5,167	6,433	4,908	5,102
55+	9,384	10,665	12,980	16,038	16,523
Total	31,703	38,305	41,300	44,500	46,500

Caroline County

	1990	2000	2010	2020	2030
0-14	4,216	4,542	4,316	4,819	5,413
15-24	2,707	2,577	3,177	2,939	3,332
25-34	3,287	2,915	2,698	3,349	3,252
35-44	2,815	3,696	3,167	2,839	3,632
45-54	2,176	3,188	4,286	3,579	3,242
55+	4,016	5,203	7,556	10,373	12,131
Total	19,217	22,121	25,200	27,900	31,000

Essex County

	1990	2000	2010	2020	2030
0-14	1,727	1,915	1,911	2,177	2,214
15-24	1,026	1,079	1,155	1,145	1,396
25-34	1,271	1,183	1,237	1,310	1,247
35-44	1,222	1,515	1,554	1,640	1,635
45-54	982	1,487	1,503	1,620	1,675
55+	2,461	2,810	3,041	3,408	3,733
Total	8,689	9,989	10,400	11,300	11,900

King & Queen County

	1990	2000	2010	2020	2030
0-14	1,335	1,232	1,203	1,429	1,482
15-24	830	741	822	734	910
25-34	953	708	1,083	1,072	910
35-44	876	1,072	892	1,260	1,249
45-54	697	1,005	1,093	883	1,278
55+	1,598	1,872	1,908	2,021	1,970
Total	6,289	6,630	7,000	7,400	7,800

King George County

	1990	2000	2010	2020	2030
0-14	3,234	3,918	3,603	3,931	4,559
15-24	1,881	2,130	2,620	2,474	2,669
25-34	2,574	2,317	2,556	3,061	2,972
35-44	2,064	3,011	2,820	3,033	3,568
45-54	1,471	2,304	3,666	3,354	3,532
55+	2,303	3,123	5,035	7,847	9,800
Total	13,527	16,803	20,300	23,700	27,100

King William County

	1990	2000	2010	2020	2030
0-14	2,439	2,834	2,812	2,781	3,068
15-24	1,402	1,380	1,695	1,831	1,859
25-34	1,775	1,866	1,336	1,671	1,869
35-44	1,747	2,274	2,453	1,761	2,199
45-54	1,237	1,959	2,523	2,781	2,009
55+	2,313	2,833	4,580	6,576	8,397
Total	10,913	13,146	15,400	17,400	19,400

2010 - 2030 data are projections.

Source: Virginia Employment Commission 8/03, U.S. Census Bureau.





Population by Age

Lancaster County

	1990	2000	2010	2020	2030
0-14	1,858	1,759	1,909	2,312	2,400
15-24	1,019	1,007	1,361	1,303	1,580
25-34	1,220	828	1,248	1,589	1,380
35-44	1,296	1,444	1,144	1,571	1,881
45-54	1,160	1,571	1,541	1,151	1,580
55+	4,343	4,958	4,597	4,074	3,379
Total	10,896	11,567	11,800	12,000	12,200

Mathews County

	1990	2000	2010	2020	2030
0-14	1,364	1,464	1,236	1,318	1,513
15-24	928	845	947	805	947
25-34	983	848	688	906	820
35-44	1,123	1,282	728	664	976
45-54	1,000	1,397	1,505	725	674
55+	2,950	3,371	4,697	6,182	6,270
Total	8,348	9,207	9,800	10,600	11,200

Middlesex County

	1990	2000	2010	2020	2030
0-14	1,504	1,557	1,305	1,602	1,753
15-24	814	861	1,080	814	1,060
25-34	1,157	890	954	1,220	900
35-44	1,096	1,385	1,251	1,297	1,609
45-54	1,029	1,515	1,557	1,390	1,466
55+	3,053	3,724	4,152	4,377	4,312
Total	8,653	9,932	10,300	10,700	11,100

Northampton County

	1990	2000	2010	2020	2030
0-14	2,817	2,478	2,179	2,266	2,223
15-24	1,429	1,503	1,522	1,304	1,434
25-34	1,829	1,215	1,363	1,447	1,222
35-44	1,626	1,881	1,154	1,314	1,443
45-54	1,218	1,804	1,841	1,152	1,355
55+	4,142	4,212	4,342	4,717	4,323
Total	13,061	13,093	12,400	12,200	12,000

Northumberland County

	1990	2000	2010	2020	2030
0-14	1,802	1,849	2,106	2,518	2,943
15-24	952	1,028	1,305	1,487	1,832
25-34	1,264	949	1,167	1,475	1,649
35-44	1,200	1,532	1,339	1,607	1,978
45-54	1,147	1,611	1,900	1,631	1,954
55+	4,159	5,290	6,483	7,284	7,344
Total	10,524	12,259	14,300	16,000	17,700

Richmond County

	1990	2000	2010	2020	2030
0-14	1,435	1,275	1,463	1,808	1,976
15-24	849	1,050	942	984	1,324
25-34	1,053	1,238	1,363	1,135	1,174
35-44	982	1,567	1,583	1,697	1,454
45-54	776	1,232	1,683	1,647	1,815
55+	2,178	2,447	2,767	3,429	3,957
Total	7,273	8,809	9,800	10,700	11,700

2010 - 2030 data are projections.

Source: Virginia Employment Commission 8/03, U.S. Census Bureau.

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Population by Age

Spotsylvania County

	1990	2000	2010	2020	2030
0-14	14,790	22,781	28,788	35,116	40,271
15-24	7,775	10,953	16,892	18,682	23,210
25-34	10,802	12,552	15,042	20,377	22,405
35-44	10,195	16,510	17,773	18,937	24,808
45-54	5,896	12,846	18,464	18,270	19,371
55+	7,945	14,753	28,041	41,618	51,336
Total	57,403	90,395	125,000	153,000	181,400

Stafford County

	1990	2000	2010	2020	2030
0-14	15,323	24,363	23,689	27,116	31,286
15-24	9,672	12,001	19,719	16,544	18,598
25-34	11,198	12,853	13,069	19,665	17,278
35-44	10,946	18,272	15,619	13,963	21,257
45-54	6,781	12,958	25,299	19,124	16,808
55+	7,316	11,999	30,504	58,288	75,173
Total	61,236	92,446	127,900	154,700	180,400

Westmoreland County

	1990	2000	2010	2020	2030
0-14	3,061	3,144	2,958	3,533	3,802
15-24	1,802	1,757	2,354	2,008	2,399
25-34	2,151	1,633	1,800	2,433	2,122
35-44	2,006	2,369	1,721	1,853	2,501
45-54	1,728	2,407	2,542	1,834	1,965
55+	4,732	5,408	6,225	6,839	6,611
Total	15,480	16,718	17,600	18,500	19,400

Fredericksburg city

	1990	2000	2010	2020	2030
0-14	3,013	2,937	2,770	2,891	2,906
15-24	4,954	5,086	5,522	4,928	5,176
25-34	3,393	2,856	2,557	3,040	2,819
35-44	2,180	2,385	1,912	1,717	2,032
45-54	1,493	2,138	2,342	1,947	1,753
55+	3,994	3,877	5,296	6,877	7,714
Total	19,027	19,279	20,400	21,400	22,400



Employment by Industry

Accomack County

2002 **INDUSTRY SECTOR** ****TOTAL**** 13,961 **AGRICULTURE** 1,592 MINING D UTILITIES 60 CONSTRUCTION 513 **MANUFACTURING** 3,444 TRADE-WHOLESALE 239 TRADE-RETAIL 1,312 **TRANSPORTATION** 150 **INFORMATION** 269 FINANCE/INSURNC 230 **REAL ESTATE** 134 PROF/TECH SERV 484 MANAGMNT OF COS D ADMIN/WASTE SER 449 **EDUCATIONAL SER** D **HEALTH CARE** 965 ARTS/ENTER/REC 92 ACCOMMDATN/FOOD 1,296 OTHER SERVICES 278 **GOVT TOTAL** 2,450 **GOVT FEDERAL** 647 **GOVT STATE** 381 **GOVT LOCAL** 1,422 **UNCLASSIFIED** 0

Caroline County

INDUSTRY SECTOR	2002
****TOTAL****	5,342
AGRICULTURE	95
MINING	D
UTILITIES	D
CONSTRUCTION	976
MANUFACTURING	427
TRADE-WHOLESALE	50
TRADE-RETAIL	787
TRANSPORTATION	154
INFORMATION	D
FINANCE/INSURNC	205
REAL ESTATE	32
PROF/TECH SERV	96
MANAGMNT OF COS	D
ADMIN/WASTE SER	158
EDUCATIONAL SER	D
HEALTH CARE	192
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	325
OTHER SERVICES	219
GOVT TOTAL	1,394
GOVT FEDERAL	298
GOVT STATE	202
GOVT LOCAL	893
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Essex County

INDUSTRY SECTOR 2002 ****TOTAL**** 4,130 **AGRICULTURE** 42 D MINING UTILITIES D CONSTRUCTION 120 **MANUFACTURING** 800 TRADE-WHOLESALE 131 TRADE-RETAIL 825 **TRANSPORTATION** 19 **INFORMATION** 32 FINANCE/INSURNC 107 **REAL ESTATE** 24 PROF/TECH SERV 67 MANAGMNT OF COS D ADMIN/WASTE SER 153 **EDUCATIONAL SER** D **HEALTH CARE** 569 ARTS/ENTER/REC 77 ACCOMMDATN/FOOD 443 OTHER SERVICES 163 **GOVT TOTAL** 459 **GOVT FEDERAL** 30 **GOVT STATE** 46 382 **GOVT LOCAL**

0

King & Queen County

INDUSTRY SECTOR	2002
****TOTAL****	993
AGRICULTURE	69
MINING	D
UTILITIES	D
CONSTRUCTION	94
MANUFACTURING	224
TRADE-WHOLESALE	D
TRADE-RETAIL	50
TRANSPORTATION	41
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	D
PROF/TECH SERV	34
MANAGMNT OF COS	D
ADMIN/WASTE SER	24
EDUCATIONAL SER	D
HEALTH CARE	34
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	D
OTHER SERVICES	26
GOVT TOTAL	298
GOVT FEDERAL	17
GOVT STATE	12
GOVT LOCAL	268
UNCLASSIFIED	0

UNCLASSIFIED



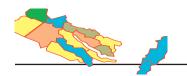
King George County

INDUSTRY SECTOR	2002
****TOTAL****	9,227
AGRICULTURE	81
MINING	D
UTILITIES	D
CONSTRUCTION	326
MANUFACTURING	107
TRADE-WHOLESALE	85
TRADE-RETAIL	443
TRANSPORTATION	108
INFORMATION	216
FINANCE/INSURNC	103
REAL ESTATE	50
PROF/TECH SERV	2,189
MANAGMNT OF COS	D
ADMIN/WASTE SER	499
EDUCATIONAL SER	D
HEALTH CARE	209
ARTS/ENTER/REC	20
ACCOMMDATN/FOOD	281
OTHER SERVICES	94
GOVT TOTAL	4,358
GOVT FEDERAL	3,601
GOVT STATE	43
GOVT LOCAL	714
UNCLASSIFIED	0

King William County

INDUSTRY SECTOR	2002
****TOTAL****	3,635
AGRICULTURE	93
MINING	D
UTILITIES	D
CONSTRUCTION	239
MANUFACTURING	767
TRADE-WHOLESALE	119
TRADE-RETAIL	501
TRANSPORTATION	101
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	26
PROF/TECH SERV	102
MANAGMNT OF COS	D
ADMIN/WASTE SER	D
EDUCATIONAL SER	D
HEALTH CARE	272
ARTS/ENTER/REC	17
ACCOMMDATN/FOOD	168
OTHER SERVICES	130
GOVT TOTAL	714
GOVT FEDERAL	22
GOVT STATE	40
GOVT LOCAL	652
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Lancaster County

INDUSTRY SECTOR 2002 ****TOTAL**** 4,586 **AGRICULTURE** 30 D MINING UTILITIES D CONSTRUCTION 317 MANUFACTURING 223 TRADE-WHOLESALE 73 TRADE-RETAIL 697 **TRANSPORTATION** 48 **INFORMATION** 80 FINANCE/INSURNC 249 **REAL ESTATE** 56 PROF/TECH SERV 147 MANAGMNT OF COS D ADMIN/WASTE SER 107 **EDUCATIONAL SER** D **HEALTH CARE** 1,046 ARTS/ENTER/REC 46 ACCOMMDATN/FOOD 534 OTHER SERVICES 269 **GOVT TOTAL** 526 **GOVT FEDERAL** 43 **GOVT STATE** 55 427 **GOVT LOCAL UNCLASSIFIED** 0

Mathews County

INDUSTRY SECTOR	2002
****TOTAL****	1,583
AGRICULTURE	85
MINING	D
UTILITIES	D
CONSTRUCTION	136
MANUFACTURING	151
TRADE-WHOLESALE	34
TRADE-RETAIL	225
TRANSPORTATION	57
INFORMATION	D
FINANCE/INSURNC	36
REAL ESTATE	12
PROF/TECH SERV	55
MANAGMNT OF COS	D
ADMIN/WASTE SER	27
EDUCATIONAL SER	D
HEALTH CARE	107
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	115
OTHER SERVICES	116
GOVT TOTAL	398
GOVT FEDERAL	32
GOVT STATE	16
GOVT LOCAL	349
UNCLASSIFIED	0

[&]quot;D" indicates nondisclosed data.





Middlesex County

INDUSTRY SECTOR 2002 ****TOTAL**** 3,279 **AGRICULTURE** D MINING D UTILITIES D CONSTRUCTION 231 MANUFACTURING 236 TRADE-WHOLESALE 101 TRADE-RETAIL 387 **TRANSPORTATION** 50 **INFORMATION** 53 FINANCE/INSURNC 93 **REAL ESTATE** 38 PROF/TECH SERV 85 MANAGMNT OF COS D ADMIN/WASTE SER 77 **EDUCATIONAL SER** D **HEALTH CARE** 225 ARTS/ENTER/REC 138 ACCOMMDATN/FOOD 269 OTHER SERVICES 149 **GOVT TOTAL** 896 **GOVT FEDERAL** 22

124 751

0

GOVT STATE

GOVT LOCAL UNCLASSIFIED

Northampton County

INDUSTRY SECTOR	2002
****TOTAL****	5,645
AGRICULTURE	691
MINING	D
UTILITIES	D
CONSTRUCTION	162
MANUFACTURING	463
TRADE-WHOLESALE	153
TRADE-RETAIL	623
TRANSPORTATION	14
INFORMATION	D
FINANCE/INSURNC	54
REAL ESTATE	28
PROF/TECH SERV	D
MANAGMNT OF COS	D
ADMIN/WASTE SER	D
EDUCATIONAL SER	D
HEALTH CARE	1,021
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	553
OTHER SERVICES	139
GOVT TOTAL	1,339
GOVT FEDERAL	46
GOVT STATE	74
GOVT LOCAL	1,219
UNCLASSIFIED	0





Northumberland County

INDUSTRY SECTOR 2002 ****TOTAL**** 2,637 **AGRICULTURE** 23 MINING D UTILITIES D CONSTRUCTION 303 **MANUFACTURING** 517 TRADE-WHOLESALE 67 TRADE-RETAIL 366 **TRANSPORTATION** 73 **INFORMATION** 25 FINANCE/INSURNC D **REAL ESTATE** D PROF/TECH SERV 57 MANAGMNT OF COS D ADMIN/WASTE SER 117 **EDUCATIONAL SER** D 45 **HEALTH CARE** ARTS/ENTER/REC 149 ACCOMMDATN/FOOD 114 174 OTHER SERVICES **GOVT TOTAL** 495 **GOVT FEDERAL** 29 **GOVT STATE** 25 **GOVT LOCAL** 442 **UNCLASSIFIED** 0

Richmond County

INDUSTRY SECTOR	2002
****TOTAL****	2,815
AGRICULTURE	111
MINING	D
UTILITIES	D
CONSTRUCTION	122
MANUFACTURING	151
TRADE-WHOLESALE	139
TRADE-RETAIL	418
TRANSPORTATION	23
INFORMATION	D
FINANCE/INSURNC	D
REAL ESTATE	15
PROF/TECH SERV	51
MANAGMNT OF COS	D
ADMIN/WASTE SER	14
EDUCATIONAL SER	D
HEALTH CARE	328
ARTS/ENTER/REC	D
ACCOMMDATN/FOOD	131
OTHER SERVICES	77
GOVT TOTAL	901
GOVT FEDERAL	36
GOVT STATE	511
GOVT LOCAL	353
UNCLASSIFIED	0





Spotsylvania County

2002 **INDUSTRY SECTOR** ****TOTAL**** 25,577 **AGRICULTURE** 61 MINING D UTILITIES D CONSTRUCTION 3,014 MANUFACTURING 2,220 TRADE-WHOLESALE 1,197 TRADE-RETAIL 5,809 **TRANSPORTATION** 1,595 **INFORMATION** 219 FINANCE/INSURNC 299 **REAL ESTATE** 433 PROF/TECH SERV 956 MANAGMNT OF COS D ADMIN/WASTE SER 1,272 **EDUCATIONAL SER** 269 **HEALTH CARE** 984 ARTS/ENTER/REC 285

1,849 719

4,185

47

303

2

3,836

ACCOMMDATN/FOOD

OTHER SERVICES
GOVT TOTAL

GOVT FEDERAL

GOVT STATE

GOVT LOCAL

UNCLASSIFIED

Stafford County

INDUSTRY SECTOR	2002
****TOTAL****	25,874
AGRICULTURE	25
MINING	D
UTILITIES	D
CONSTRUCTION	2,691
MANUFACTURING	770
TRADE-WHOLESALE	1,818
TRADE-RETAIL	2,372
TRANSPORTATION	473
INFORMATION	193
FINANCE/INSURNC	5,016
REAL ESTATE	321
PROF/TECH SERV	1,140
MANAGMNT OF COS	D
ADMIN/WASTE SER	720
EDUCATIONAL SER	204
HEALTH CARE	1,326
ARTS/ENTER/REC	426
ACCOMMDATN/FOOD	2,160
OTHER SERVICES	1,035
GOVT TOTAL	4,709
GOVT FEDERAL	158
GOVT STATE	133
GOVT LOCAL	4,418
UNCLASSIFIED	0





Westmoreland County

INDUSTRY SECTOR 2002 ****TOTAL**** 3,220 **AGRICULTURE** 215 MINING D UTILITIES 12 CONSTRUCTION 147 **MANUFACTURING** 561 TRADE-WHOLESALE 38 TRADE-RETAIL 451 **TRANSPORTATION** 43 **INFORMATION** D FINANCE/INSURNC 90 **REAL ESTATE** 15 PROF/TECH SERV 71 MANAGMNT OF COS D ADMIN/WASTE SER 76 **EDUCATIONAL SER** D **HEALTH CARE** 145 ARTS/ENTER/REC 116 ACCOMMDATN/FOOD 282 89 OTHER SERVICES **GOVT TOTAL** 828 **GOVT FEDERAL** 69 **GOVT STATE** 55 **GOVT LOCAL** 704 **UNCLASSIFIED** 0

Fredericksburg city

INDUSTRY SECTOR	2002
****TOTAL****	23,250
AGRICULTURE	D
MINING	D
UTILITIES	D
CONSTRUCTION	663
MANUFACTURING	537
TRADE-WHOLESALE	666
TRADE-RETAIL	3,577
TRANSPORTATION	182
INFORMATION	859
FINANCE/INSURNC	703
REAL ESTATE	446
PROF/TECH SERV	1,176
MANAGMNT OF COS	434
ADMIN/WASTE SER	957
EDUCATIONAL SER	112
HEALTH CARE	4,724
ARTS/ENTER/REC	348
ACCOMMDATN/FOOD	3,555
OTHER SERVICES	836
GOVT TOTAL	3,444
GOVT FEDERAL	255
GOVT STATE	1,484
GOVT LOCAL	1,705
UNCLASSIFIED	0